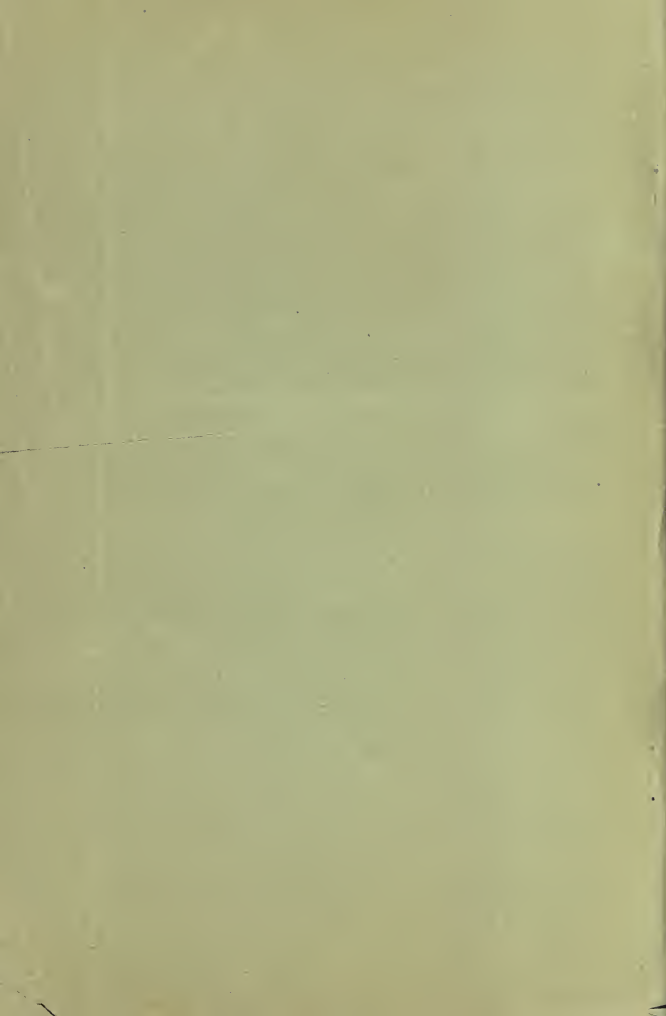


[Volume 49.]

ALPHABETICAL LISTS
OF
PATENTEES AND INVENTIONS

FOR
The Quarter Ending December 31, 1889.



ALPHABETICAL LIST OF PATENTEES

FOR

THE QUARTER ENDING DECEMBER 31, 1889.

[Claims and drawings of Designs do not appear in the Monthly Volumes or the Gazette. Separate indexes for Designs, Trade-Marks, Labels, and Disclaimers follow this.]

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.
			Specification.	Drawing.	
					Volume. Page.
Abbott, Edward L. (See Sooyamith and Abbott.)					
Abbott, Jonathan P., Cleveland, Ohio. Eaves-trough	417,657	Dec. 17	2257	599	49 1898
Abdank-Ahakanovitz, Bruno, Paris, France, assignor to American Bell Telephone Com-	412,579	Oct. 8	1160	305	49 236
pany, Boston, Mass. Microphonic transmitter	412,580	Oct. 8	1163	306	49 236
Abdank-Ahakanovitz, Bruno, Paris, France, assignor to American Bell Telephone Com-	413,907	Oct. 29	3878	855	49 673
pany, Boston, Mass. Telephone-station apparatus	411,880	Oct. 1	149	39	49 31
Abell, John, Toronto, Ontario, Canada. Steam-boiler fire-box	417,849	Dec. 24	2552	672	49 1893
Abercrombie, Frank P., Sanbury, Pa. Interlocking-switch-operating mechanism	417,850	Dec. 24	2552	672	49 1893
Abernethy, Thomas H., Bean's Mills, N. C. Rib for saw-guts	417,851	Dec. 24	2554	672	49 1893
Abraham, Isaac B., San Francisco, Cal., assignor of one-half to J. B. Thomas, of Illinois.	416,246	Dec. 3	135	38	49 1385
Axle-lubricator	415,430	Nov. 19	1920	499	49 1125
Abrahamson, Peter, San Francisco, Cal. Ventilator	417,850	Dec. 24	2552	672	49 1893
Abrams, Amos R., Clark's Mills, Pa. Snicker-rod elevator	417,851	Dec. 24	2554	672	49 1893
Abrsch, Charles, Milwaukee, Wis. Skeleton wagon	416,246	Dec. 3	135	38	49 1385
Acers, N. F., et al. (See Maloney, Joseph A., assignor.)	415,430	Nov. 19	1920	499	49 1125
Ackermann, Paul, Sulzsch, near Glogau, Prussia, Germany. Irrigating apparatus	416,947	Dec. 3	136	* 38	49 1395
Ackroyd, Reuben, Crum Lynne, Pa. Apparatus for cleaning wool-combs	413,908	Oct. 29	3879	856	49 673
Acme Heel Trimmer Company. (See Ethridge and Fuller, assignors.)					
Acme Heel Trimmer Company. (See Plummer, John W., assignor.)					
Adair, James, New York, N. Y. Tooth-pick	412,225	Oct. 8	645	169	49 135
Adams, Frederick U., assignor of one-half to L. B. Fisman, Chicago, Ill. Street-lamp post	414,933	Nov. 12	1146	300	49 923
for electric lamps	415,431	Nov. 19	1922	500	49 1123
Adams, James E., Ocean Beach, N. J. Foot-power					
Adams, Osenas T. X. (See Adams, Phineas H., Jr., and O. T. X.)					
Adams, Phineas H., Jr., and O. T. X., assignors to M. Peck, Chicago, Ill. Apparatus for	416,314	Dec. 3	943	63	49 1417
use in decomposing metallic salts and desulphurizing ores	416,315	Dec. 3	945	64	49 1417
Adams, Phineas H., Jr., and O. T. X., assignors to M. Peck, Chicago, Ill. Apparatus for	416,316	Dec. 3	947	64	49 1418
decomposing metallic salts and desulphurizing ores	416,316	Dec. 3	947	64	49 1418
Adams, Ruric N., et al. (See Pfautz, Daniel M., assignor.)					
Adams, Samuel, Chicago, Ill. Lamp-burner	413,704	Oct. 29	2850	743	49 584
Adams, Samuel J., assignor of three-fourths to J. and A. Brown, Detroit, Mich. Telephone-	414,132	Oct. 29	3474	902	49 715
supporting device	413,818	Oct. 29	3007	783	49 614
Adams, Thomas E., Cleveland, Ohio. Device for suspending electric conductors for electric	416,284	Dec. 3	137	52	49 1407
railways					
Adams, Thomas E., Cleveland, Ohio. Connector for railway-conductors	413,818	Oct. 29	3007	783	49 614
Adhesive Gimp Company. (See Edwards, Albert, assignor.)					
Adrianse, Benjamin, Brooklyn, assignor to J. H. Volkmann, New York, N. Y. Vending	413,009	Oct. 15	1802	473	49 364
apparatus					
Adt Brothers. (See Adt, Eduard, assignor.)					
Adt, Eduard, assignor to Adt Brothers, Ennsheim, Bavaria, Germany. Bobbin	414,474	Nov. 5	433	114	49 832
Advance Thresher Company. (See Bailey, Victor C., assignor.)					
Aeius, John, assignor to Cleveland School Furniture Company, Cleveland, Ohio. School-	416,660	Dec. 3	767	209	49 1522
desk					
Aeolian Organ and Piano Company. (See Pain, Robert W., assignor.)					
Agan, Hiram, assignor of one-half to A. Ethridge, Rome, N. Y. Cultivator-tooth	412,445	Oct. 8	964	253	29 196
Aiken, Henry. (See Kennedy and Aiken.)					
Aiken, Henry, Homestead, Pa. Car or truck	413,705	Oct. 29	2851	* 743	49 584
Aiken, Henry, Homestead, Pa. Casting ingots or billets	416,705	Dec. 10	839	227	49 1543
Aiken, Henry, Homestead, Pa. Mold for ingots	416,706	Dec. 10	840	227	49 1543
Aiken, Henry, Homestead, assignor to Carnegie, Phipps & Company, (limited,) Allegheny	415,402	Nov. 19	1673	* 487	49 1113
County, Pa. Apparatus for the manufacture of axles				* 488	
Aiken, Henry, Homestead, assignor to Carnegie, Phipps & Company, (limited,) Allegheny	415,403	Nov. 19	1673	488	49 1113
County, Pa. Manufacturing axles	415,401	Nov. 19	1672	487	49 1113
Aiken, Henry, Homestead, assignor of one-half to D. B. Oliver, Pittsburg, Pa. Mill appli-	415,663	Nov. 19	2206	599	49 1190
cance	412,147	Dec. 31	3021	793	49 1991
Ainsworth, Eleazer, and L. J. Lingro, Wilmington, Del. Steam-boiler cleaner					

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. sk.	Vol.	Page.
Akers, Joshua S., Millard, Dak. Ter. Temporary binder.....	413,122	Oct. 15	1976	515	49	398
Akers, William P., assignor of one-half to J. C. Lindsey, Jr., Jacksonville, Tex. Rotary engine.....	413,329	Nov. 5	263	66	49	791
Akins, John R., et al. (See Taylor and Lightfoot, assignors.)						
Akron Stoneware Company. (See Homel, Martin, assignor.)						
Albany Coal Tar Dyce and Chemical Company. (See Greville-Williams, Rnpport, assignor.)						
Albee, Horneatus M., Newark, and C. B. Hedden, East Orange, N. J. Floor-planing machine.....	414,275	Nov. 5	141	{ 34 35 36 105 }	{ 40 40 40 40 }	765
Albert, Henry, Crescent City, Cal. Elevator safety device.....	412,059	Oct. 1	406	{ 105 105 }	{ 49 49 }	81
Albertson, Abraham L., Kansas City, Mo. Steam-piston valve.....	412,226	Oct. 8	646	169	49	135
Albright, Samuel, Goose Lake, Iowa. Caster for grain-binders.....	414,475	Nov. 5	454	115	49	832
Aldcorn, Thomas, New Durham, N. J. Ball-and-socket pipe-coupling.....	412,940	Oct. 15	1763	445	49	344
Allen Type Machine Company. (See Johnson and Low, assignors.)						
Aldrich, Robert, Millville, Mass. Hydrocarbon-engine.....	411,914	Oct. 1	200	51, 52	49	41
Alesangel, John H., Pymont, Ohio. Drag-saw.....	415,764	Nov. 26	2460	{ 642 643 }	{ 49 49 }	1328
Alexander, Jasper C., Fisher's Station, Ind. Gate.....	416,885	Dec. 10	1097	296	49	1504
Alexander, John T., Arlington, Ky. Bee-hive.....	412,000	Oct. 1	408	105	49	82
Alzie, Benjamin C. (See Cook, James, assignor.)						
Alkins, Charles, assignor to H. Alkins, Monroeville, Mich. Railway-switch stand.....	414,133	Oct. 29	3475	903	49	715
Alkins, Henrietta. (See Alkins, Charles, assignor.)						
Alleger, John W., Brooklyn, N. Y. Stave-hasket.....	414,894	Nov. 12	1096	281	49	92
Allen, Arthur T., Sheffield, county of York, England. Metallic packing for pistons.....	412,227	Oct. 8	647	160	49	135
Allen, Azro B., Sanford, Fla. Step for railway-cars.....	413,312	Oct. 22	2279	{ 503 503 }	{ 49 49 }	464
Allen, Eugene S., New York, N. Y. Self-lighting gas-burner.....	416,707	Dec. 10	2328	222	49	1543
Allen, Frank H., Fort Allen, La. Fertilizer-distributor.....	412,661	Oct. 1	469	175	49	82
Allen, George, Franklin, Pa. Apparatus for pumping oil-wells.....	416,906	Dec. 3	82	34	49	1394
Allen, George E., and E. J. Wallace, Philadelphia, Pa. Street-car coupling.....	415,238	Oct. 29	3033	790	49	620
Allen, Hassan U., Eutaw, Ala., assignor to F. R. Cogswell, New Orleans, La., and M. J. Eutaw, Ala. Machinery for ginning cotton and preparing it for spinning, &c.....	416,886	Dec. 10	1097	296	49	1394
Allen, Horace E., Indianapolis, Ind. Combined cupping device and vacuum-pump.....	412,446	Oct. 8	665	234	49	196
Allen, James W., St. Louis, Mo. Type-writer copy-holder.....	412,221	Oct. 1	638	166	49	129
Allen, Martha J., et al. (See Allen, Hassan U., assignor.)						
Allen, Napoleon B., assignor of one-half to L. O. Jones, Brooklyn, N. Y. Curtain-ring attachment.....	415,432	Nov. 19	1923	500	49	1123
Allen, Peter W., Pueblo, Colo. Attachment for tanners' double-seaming machines.....	413,320	Oct. 22	2280	616	49	461
Allen, Robert, Arhela, assignor of one-half to J. L. Richardson, Tuscola, Mich. End-board fastening for wagons.....	412,941	Oct. 15	1704	445	49	345
Allen, Thomas E., Amsterdam, N. Y. Vehicle-spring.....	417,461	Dec. 17	1942	518	49	1769
Allen, William, et al. (See Korrigan, Frank, assignor.)						
Allen, William H., Jr., and A. N. Makepeace, West Brookfield, Mass. Boot or shoe.....	415,490	Nov. 19	3023	525	49	1144
Alley, Moses, Phillips, Wis. Device for supplying superheated steam to furnaces.....	414,350	Nov. 5	266	67	49	707
Alfroe, James B., Indianapolis, Ind. Balanced slide-valve.....	418,104	Dec. 24	2943	771	49	1068
Alfroe, Herbert, New York, N. Y. Fire-escape.....	412,603	Oct. 8	1347	350	49	371
Alington, William E., et al. (See Olmsted, David, assignor.)	414,476	Nov. 5	455	115	49	632
Allis, Edward P. (See Birkholz, Hans, assignor.)						
Allison, George A., Pascoag, R. I. Mechanism for feeding carding-engines.....	414,361	Nov. 5	267	67	49	792
Allison, John W., et al. (See O'Brien, John F., assignor.)						
Allrod, James M., et al. (See Chummes, James A., assignor.)						
Almack, John W., Coshocton, Ohio. Egg-case.....	413,839	Oct. 29	3034	790	49	620
Almond, Thomas R., New York, and L. J. Groshean, Brooklyn, N. Y. Lubricating device for loose pulleys.....	412,826	Oct. 15	1538	402	49	315
Alpha Glass and Metal Company. (See Pennycook, John T., assignor.)						
Altheide, Fritz, Minneapolis, Minn. Collar-pad.....	415,316	Nov. 19	1740	454	49	1091
Altmann, Adolph, and F. Kipperrmann, Berlin, Germany. Petroleum-motor.....	412,228	Oct. 8	648	{ 160 170 }	{ 49 49 }	135
Altmannsparger, Charles A., et al. (See Loomis, John F., assignor.)						
Altpeter, J. J. (See Korrigan, Frank, assignor.)						
Alvord, Bruce C. (See Shultz, John A. J., assignor.)						
Amberg File and Index Company. (See Amberg, Theodore J., assignor.)						
Amberg, Theodore J., assignor to Amberg File and Index Company, Chicago, Ill. Fastener for file-cases.....	411,849	Oct. 1	115	39	49	25
Ambery, Martha E., Fishkill-on-the-Hudson, N. Y. Cloak and skirt protector.....	412,009	Oct. 1	329	87	49	67
Ambrister, Samuel A., Dubar, Nebr. Corn-gathering machine.....	413,999	Oct. 29	3220	850	49	674
American Ammonia Manufacturing Company. (See Fozarty, Thomas B., assignor.)						
American Automatic Vending Machine Manufacturing Company. (See Cochran, Fred-eric B., assignor.)						
American Bell Telephone Company. (See Ablank-Abrkanowicz, Brno, assignor.)						
American Extractor Company. (See Hyatt, John W., assignor.)						
American Healing M. Machine Company. (See Pope, Joseph H., assignor.)						
American Manufacturing Company. (See Strickler, Phillips, and Stouffer, assignors.)						
American Passimetre Company. (See Brady, James, assignor.)						
American Pneumatic Tool Company. (See MacCoy, Marsh, and Williams, assignors.)						
American Press Association. (See Cummings, John R., assignor.)						
American Rond Machine Company. (See Taft and Latspur, assignors.)						
American Roll Paper Company. (See Ehrlich, Leo, assignor.)						
American Saw Company. (See Brooke, William E., assignor.)						
American Screw Company. (See Rogers, Charles D., assignor.)						
American Semaphore Company. (See Stitzel, Fredrick, assignor.)						
American Semaphore Company. (See Stitzel and Wenedel, assignors.)						
American Ship Windlass Company. (See Whitney, Edwin H., assignor.)						
American Shoe Tip Company. (See Taylor, Eugene H., assignor.)						
American Store Service Company. (See Kenney, Thomas M., assignor.)						
American Type Setter Company. (See Dow, Lorenzo, assignor.)						
American Waltham Watch Company. (See Schmalz, Francois, assignor.)						
American Writing Machine Company. (See Boyer, John J., assignor.)						
American Zyloite Company. (See Jarvis, John G., assignor.)						
Ames, Charles L., et al. (See Hill, Christian C., assignor.)						
Ames, George, Coffeyville, Kans. Check-row planter.....	412,357	Oct. 8	847	{ 221 222 }	{ 49 49 }	172
Ames, Joseph H. (See Warren and Ames.)						
Ames, Robert B., Marlborough, Mass. Sled.....	412,062	Oct. 1	410	105	49	82

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr.	Vol.	Page.
Amet, Edward H., assignor to H. A. Streeter, Chicago, Ill. Automatic scale for weighing railway-cars and recording the weight thereof	413,880	Oct. 29	3099	808	49	634
Amet, Edward H., assignor to himself and H. A. Streeter, Chicago, Ill. Fire-escape	413,881	Oct. 29	3104	809	49	635
Amet, Edward H., assignor to himself and H. A. Streeter, Chicago, Ill. Device for holding cords or lines	413,882	Oct. 29	3105	809	49	635
Amet, Edward H., assignor to himself and H. A. Streeter, Chicago, Ill. Coin-operated display apparatus	414,000	Oct. 29	3381	856	49	674
Ammons, John B., Columbia, Ky. Horse-detacher	414,477	Nov. 5	457	110	49	833
Amwake, Jacob B., assignor to W. W. and E. T. Fraim, Lancaster, Pa. Padlock	412,322	Oct. 1	630	167	49	138
Anderson, John M., assignor to C. L. Edgar, trustee, Boston, Mass. Trolley attachment for electric-railway cars	413,739	Oct. 29	3579	776	49	609
Anderson, Peter, assignor to H. G. Olds, Fort Wayne, Ind. Wagon-reach	412,157	Oct. 1	510	142	49	109
Anderson, Abraham, assignor to G. D. Colton & Company, Galesburg, Ill. Broom-corn-combing machine	414,178	Nov. 5	1	1	49	730
Anderson, Albert, assignor to C. L. Edgar, trustee, Boston, Mass. Trolley for electric-railway service	412,883	Oct. 29	3109	810	49	636
Anderson, Albert, assignor to C. L. Edgar, trustee, Boston, Mass. Splice for wire	412,155	Oct. 1	577	141	49	109
Anderson, Andrew, (See Edmonds and Engber, assignors.)	414,302	Nov. 5	309	68	49	733
Anderson, Charles A., Rockford, Ill. Car-coupling	414,001	Oct. 29	3382	857	49	674
Anderson, Charles A., Rockford, Ill. Corn-planter	415,012	Nov. 12	1207	331	49	996
Anderson, Christopher. (See Lindström, Hjalmar, assignor.)						
Anderson, David H., Granite, Mont. Ter. Crusher	411,891	Oct. 1	138	30, 40	49	39
Anderson, Eliza, Kansas City, Mo. Tag	412,747	Oct. 29	2905	756	49	396
Anderson, Frank, Peekskill, N. Y. Perforating-machine	412,454	Dec. 31	3524	921	49	2092
Anderson, George B. (See Leher, Luther H., assignor.)						
Anderson, Henry, San Francisco, Cal. Sewer	412,427	Oct. 29	2430	634	49	495
Anderson, Henry, assignor of one-half to M. Samisch, New York, N. Y. Mangle	412,156	Oct. 1	530	142	49	109
Anderson, Henry J., St. Louis, Mo. Ore-concentrator	414,902	Nov. 12	1194	311	49	961
Anderson, James C., and W. S. Hall, Sheffield, Ala. Window	416,772	Dec. 10	923	249	49	1550
Anderson, John. (See Nolan and Anderson.)						
Anderson, John H., Moorhead, Minn. Portable copying-press	417,378	Dec. 17	1632	491	49	1746
Anderson, John L. (See Megow and Anderson.)	414,746	Nov. 12	858	225	49	919
Anderson, John P., et al. (See Parry, William J., assignor.)						
Anderson, John W., Allegheny, Pa. Apparatus for charging ingots, &c., into furnaces	414,478	Nov. 5	450	116	49	833
Anderson, Morris P., Peoria, Ill. Steam-engine	417,571	Dec. 17	1633	492	49	1747
Anderson, Peter A., Springfield, Mo. Horseshoe	415,303	Dec. 31	3189	895	49	2045
Anderson, Robert. (See Blackhall and Anderson.)						
Anderson, Stephen J., St. Louis, Mo. Window-acron	412,610	Oct. 15	1807	472	49	365
Anderson, Theodore P., Jr., Hartwell, Ohio. Hnh-cep	412,140	Dec. 31	3024	704	49	1991
Anderson, William H., Riverside, Cal. Wash-tub	417,351	Dec. 17	1787	481	49	1738
Andersson, Carl A., Stockholm, Sweden. Automatic recorder for carriage-seats	414,903	Nov. 12	1196	311	49	962
André, Oscar, Paris, France. Apparatus for cleansing the bodies of filters	412,148	Dec. 31	3022	704	49	1991
Andren, Gustave, Omaha, Neb. Shutter-worker	413,210	Oct. 22	2131	554	49	435
Andrews, Albert. (See Rothwell, Dargie, and Andrews.)						
Andrews, Albert L., Fredonia, N. Y. Window for umbrellas and parasols	416,352	Dec. 3	303	79	49	1428
Andrews, Charles R. (See Andrews, George P. and C. E.)						
Andrews, Charles W. (See Page and Andrews.)						
Andrews & Company, A. H. (See Costello, Thomas H., assignor.)						
Andrews, George P. and C. E., Staffordville, assignors to D. E. Whiton Machine Company, New London, Conn. Chuck	412,229	Oct. 8	651	170	49	136
Andrews, James. (See Conley and Andrews.)						
Andrews, John F., et al. (See O'Neill, Lawrence, assignor.)						
Andross, Henry C., assignor of one-half to E. M. Moore, Jr., Rochester, N. Y. Drawer-pull	414,625	Nov. 5	685	178	49	876
Angell, Edwin E., Boston, assignor of one-half to E. B. Welch, Cambridge, Mass. Mandrel for can-machines	412,581	Oct. 8	1169	306	49	237
Angell, Edwin E., Boston, assignor of one-half to E. B. Welch, Cambridge, Mass. Can-soldering machine	412,582	Oct. 8	1170	307	49	237
Angell, Edwin E., Boston, assignor of one-half to E. B. Welch, Cambridge, Mass. Soldering apparatus for can-soldering machines	412,583	Oct. 8	1173	308	49	238
Angell, Edwin E., Boston, assignor of one-half to E. B. Welch, Cambridge, Mass. Can-heading machine	412,584	Oct. 8	1175	309	49	238
Angell, Edwin E., Boston, assignor of one-half to E. B. Welch, Cambridge, Mass. Horn for can-machines	414,002	Oct. 29	3324	857	49	675
Angell, Edwin E., Boston, assignor of one-half to E. B. Welch, Cambridge, Mass. Head-holding jaws for can-heading machines	415,992	Nov. 26	2795	732	49	1309
Angell, Edwin E., Boston, assignor of one-half to E. B. Welch, Cambridge, Mass. Can-heading machine	415,993	Nov. 26	2797	733	49	1309
Angell, Edwin E., Boston, assignor of one-half to E. B. Welch, Cambridge, Mass. Can-heading machine	415,994	Nov. 27	2799	734	49	1309
Angell, Edwin E., Boston, assignor of one-half to E. B. Welch, Cambridge, Mass. Head-holder for can-heading machines	416,537	Dec. 3	577	157	49	1484
Angell, Edwin E., Boston, assignor of one-half to E. B. Welch, Cambridge, Mass. Can-soldering machine	416,538	Dec. 3	578	157	49	1484
Angell, Edwin E., Boston, assignor of one-half to E. B. Welch, Cambridge, Mass. Operating mechanism for can-soldering machines	416,539	Dec. 3	581	159	49	1485
Angell, Thomas, assignor to M. J. Morrill, Brooklyn, N. Y. Gas-check	415,804	Nov. 26	2513	656	49	1348
Angie, Edward H., Minneapolis, Minn. Tooth-regulator	415,829	Nov. 26	2548	666	49	1355
Annable, George G., assignor of one-half to J. D. Whedon, Syracuse, N. Y. Governor	412,158	Oct. 1	542	142	49	109
Annable, Warren W., Grand Rapids, Mich. Pulley	413,819	Oct. 29	3068	783	49	615
Annanale, James H., Polton, county of Mid-Lothian, Scotland. Pulping-engine	412,871	Oct. 15	1601	417	49	326
Anschütz, Otto, Berlin, Germany. Photographic camera	417,131	Dec. 10	1436	395	49	1606
Anslley, George W., and C. J. Schenck, Medical Lake, Wash. Ter. Combination-tool for carpenters' use	414,875	Nov. 12	1067	274	49	956
Ansonia Brass and Copper Company. (See Walton, William R., assignor.)						
Ansonia Brass and Copper Company. (See Woodward, George W., assignor.)						
Anspach, Charles H., and J. J. Wilhelm, Cedar Grove, Ind. Band-cutting feeder for thrashing-machines	412,715	Oct. 15	1389	303	49	287

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Drawg.	Vol.	Page.
Anthony, Mark, San Francisco, Cal. Station-indicator	418,346	Dec. 31	3322	867	49	3051
Anthony, Mark, San Francisco, Cal. Street or station indicator	418,347	Dec. 31	3325	868	49	3052
Anti-Friction Composition Journal Bearing Company. (See Koch, Christian H., assignor.)						
Appert, Leon, Paris, France. Manufacture of molded glassware	417,306	Dec. 17	1711	460	49	1725
Appleberg, John T., Knoxville, Tenn. Apparatus for preserving milk	413,472	Oct. 22	2501	461	49	506
Appleton Manufacturing Company. (See McGregor, William, assignor.)						
Appleton, Robert M., Boston, Mass. Stocking	414,479	Nov. 5	461	117	49	834
Appleton, Thomas J., and B. F. Sliter, Grand Rapids, Mich. Wardrobe-bed	415,013	Nov. 12	1520	331	49	997
Appleton, William H., New York, N. Y. Machine for rolling seamless tubing	412,010	Oct. 1	330	86	49	67
Appleton, William H., New York, N. Y. Machine for rolling seamless tubing from hollow ingots	412,011	Oct. 1	333	88, 89	49	68
Appleton, William H., New York, N. Y. Machine for rolling seamless tubing	412,012	Oct. 1	330	89	49	69
Archbold, George, assignor to H. G. Bond, New York, N. Y. Dephosphorizing iron	412,447	Oct. 8	967		49	196
Archbold, George, assignor to H. G. Bond, New York, N. Y. Dephosphorizing iron and steel	412,448	Oct. 8	968		49	196
Archbold, George, assignor to H. G. Bond, New York, N. Y. Refining iron	414,134	Oct. 29	3478		49	715
Arens, August, assignor to P. & P. Corbin, New Britain, Conn. Latch and lock case	412,346	Dec. 3	153		49	1395
Argerbriht, Daniel, Troy, Ohio. Split pulley	414,450	Nov. 5	462	117	49	834
Argerbriht, Daniel, Troy, Ohio. Carriage-curtain attachment	416,540	Dec. 3	583	120	49	1485
Arkell, James, Campharie, N. Y. Making paper bags	414,934	Nov. 12	1148	300	49	973
Armbrister, George L., Red Bluff, Va. Planter and fertilizer-distributor	418,485	Dec. 31	3528	922	49	2003
Armstrong, Charles G., Englewood, Ill., assignor to New Haven Clock Company, New Haven, Conn. Hotel electrical annunciator-circuit	411,772	Oct. 1	1	1	49	3
Armstrong, Frank. (See Cash, Arthur W., assignor.)						
Armstrong, Frank. (See Hansen, Made, assignor.)						
Armstrong, Frank, Bridgeport, Conn. Bicycle seat	416,541	Dec. 3	584	120	49	1486
Armstrong, Mitchell & Co., W. G. (See Noble, Andrew, assignor.)						
Arnett, William D., Springfield, Ohio. Seeding-machine	416,542	Dec. 3	585	120	49	1486
Arnett, William D., Caldwell, Idaho Ter. Machine for destroying sage-brush	416,661	Dec. 3	767	261	49	1322
Arnolds, Charles, Bridgeport, Conn. Treating pyrites cinders for the manufacture of paint	412,428	Oct. 22	2439		49	405
Arnold, Alfred B., Chicago, Ill. Cable-carrier	414,481	Nov. 5	463	117	49	834
Arnold & Barber Spool and Bobbin Company. (See Keene, Samuel D., assignor.)						
Arnold, Clarence H., Wellsville, Ohio. Garment-support	413,772	Oct. 29	2944	767	49	102
Arnold, Collins, Albany, N. Y. Dispenser	414,833	Nov. 12	1630	203	49	970
Arnold, Henry H., Rockland, assignor of one-half to W. B. Arnold, North Abington, Mass. Leather-skiving tool	412,063	Oct. 1	411	106	49	83
Arnold, Millard M. (See Thiesen and Arnold.)						
Arnold, William B. (See Arnold, Henry H., assignor.)						
Arnold, William J., Kansas City, Kans. Refrigerating device for box-cars	416,285	Dec. 3	198	52, 53	49	1407
Arnott, James, Leeds, county of York, England. Vehicle-wheel	418,434	Dec. 31	3455	903	49	2079
Arthur, Richard H., Ingwood, Victoria. Counter-balance for mining-gears	413,121	Oct. 15	1977	515	49	378
Art, Edward, Chicago, Ill. Box-vending machine	414,747	Nov. 12	809	225	49	919
Art, Howard M., New York, N. Y. Enamel and glass-manufacturing bottle or other like hollow glassware	416,140	Dec. 3	1	1	49	1309
Ashley, Thomas C. (See Guthrie, James F., Jr., assignor.)						
Ashton, Sarah C., et al. (See McCarty, William F. M., assignor.)						
Ashton, William H., et al. (See McCarty, William F. M., assignor.)						
Askew, Charles B., Chicago, Ill. Artificial resistance for electric circuits	412,449	Oct. 8	969	254	49	196
Askew, Charles B., Chicago, Ill. Railway system	413,158	Oct. 22	2941	504	49	417
Assmus, Gustav C., Chicago, Ill. Globe-protector for arc lamps	413,611	Oct. 15	1808	473	49	306
Aspiden, James, Camden, N. J. Fire extinguisher	417,766	Dec. 24	2426	649	49	1869
Astor, John J., Jr., New York, N. Y. Bicycle-brake	417,491	Dec. 17	1801	408	49	1732
Astrup, William, Cleveland, Ohio. Awning	414,832	Nov. 12	900	226	49	943
Atchison, Thomas, Denver, Colo. Wheeled scraper	412,224	Oct. 1	641	167	49	128
Atcherson, James D., et al. (See Deas, Ebenezer, assignor.)						
Atkins, Elias C., Indianapolis, Ind. Crosscut-saw	413,012	Oct. 15	1809	473	49	306
Atkins, Henry, Streatham, county of Surrey, England. Cigarette-machine	416,547	Dec. 31	3629	948	49	2115
Atkins, James E., Mayeville, S. C. Seed-planter	412,907	Oct. 15	1657	432	49	336
Atkinson, Edward, Brookline, Mass. Cooking apparatus	417,678	Dec. 24	2321	613	49	1849
Atkinson, Edward, Brookline, Mass. Automatic sprinkler	417,679	Dec. 24	2322	613	49	1849
Atkinson, William. (See Day, Benjamin F., assignor.)						
Atkinson, William H., Brooklyn, N. Y. Metal box	411,773	Oct. 1	2	1	49	3
Attcherry, William W., Chesterfield, Ill. Door-check	415,355	Nov. 19	1812	471	49	1101
Atwater, Arthur S., Cleveland, Ohio. Armature	411,950	Oct. 1	255	60	49	52
Atwater, Richard. (See Kelsey and Atwater.)						
Atwood, Edward N., Portland, Me., assignor, by mesne assignments, to S. D. Warren & Co., Boston, Mass. Apparatus for recovering soda	418,264	Dec. 31	3189	835	49	2025
Atwood, Edward N., Portland, Me., assignor, by mesne assignments, to S. D. Warren & Co., Boston, Mass. Recovering soda	418,265	Dec. 31	3190	835	49	2025
Auberlin, Theophilus A., Detroit, Mich. Latch and lock combined	414,482	Nov. 5	464	118	49	834
Andemars, Henri. (See Gerber and Andemars.)						
Anfhauser, Samuel. (See Benfield, Anfhauser, and Mine.)						
Anltman & Taylor Company. (See Galland, Joseph, assignor.)						
Austin, Frederick C. (See Mouta, Otrua E., assignor.)						
Austin, Thomas, Logansport, Ind. Sand-box valve	417,214	Dec. 17	1577	427	49	1690
Autenrieth, Ernst F., New York, assignor to Glen Cove Machine Company, (limited,) Brooklyn, N. Y. Planing-machine	414,833	Nov. 12	991	257	49	943
Autenrieth, Ernst F., New York, assignor to Glen Cove Machine Company, (limited,) Brooklyn, N. Y. Belt-tightener	414,834	Nov. 12	992	257	49	943
Automatic Car Coupler Heating Company. (See Whittingham, George H., assignor.)						
Automatic Electric Switch Company. (See Whittingham, George H., assignor.)						
Automatic Soldering Machine. (See Corbett, Joseph, assignor.)						
Averell, John D., Brooklyn, N. Y., assignor, by mesne assignments, to Toraya Patent Gas Company, Philadelphia, Pa. Apparatus for the manufacture of wood-gas	411,850	Oct. 1	116	39	49	35
Averitt, Converse, Blakely, Ga. Coupling for clevises	413,440	Oct. 29	3035	791	49	621
Avery, Andrew J., Norway, Me. Device for preventing horses from cribbing	412,710	Oct. 15	1390	363	49	27
Avery, Henry W., Cleveland, Ohio. Metallic wheel	413,484	Oct. 29	3108	810	49	636
Avery, Henry W., Cleveland, Ohio. Cord hook	415,235	Nov. 19	1612	415	49	1064
Avery, Henry W., Cleveland, Ohio. Elevator-buckle	415,236	Nov. 19	1613	416	49	1064
Avery, Henry W., assignor to Avery Stamping Company, Cleveland, Ohio. Sheet-metal handle	413,610	Oct. 29	2755	715	49	567

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & Vol.	Page.	
Avery, Henry W., assignor to Avery Stamping Company, Cleveland, Ohio. Pipe-damper.	413,841	Oct. 29	3636	791	49 621	
Avery, John G., Spencer, Mass., assignor to Dutcher Temple Company, of Massachusetts.						
Loom-temple	416,708	Dec. 10	835	228	49 1544	
Avery Stamping Company. (See Avery, Henry W., assignor.)						
Avery Stamping Company. (See Foster and Howard, assignors.)						
Avery Stamping Company. (See Judd, Fred W., assignor.)						
Avery Stamping Company. (See Miller, Frank, assignor.)						
Avery, William G., Cleveland, Ohio. Elevator-bucket.	414,493	Nov. 5	466	118	49 835	
Avery, William G., Cleveland, Ohio. Stock-car.	415,404	Nov. 19	1877	489	49 1114	
Axford, John, Philadelphia, Pa. Knitted shirt	416,317	Dec. 3	248	64	49 1418	
Ayars, Charles H., Salem, N. J. Can-soldering block.	417,380	Dec. 17	1835	492	49 1747	
Ayars, Maurice R. (See Stevens and Ayars.)						
Ayres, Edward F., assignor of one-half to T. H. Foster, Danbury, Conn. Rubber boot or shoe	418,105	Dec. 24	2944	771	49 1968	
Babbitt, Benjamin T., deceased, New York, N. Y. R. Babbitt executrix. Apparatus for the manufacture of gas for heating and illuminating purposes.	417,638	Dec. 17	2258	599	49 1828	
Babbitt, Rebecca, executrix. (See Babbitt, Benjamin T.)						
Babbitt, Seward S., Allegheny, and A. Randolph, assignors to said Babbitt and Robinson-Rea Manufacturing Company, Pittsburgh, Pa. Eccentric-hook for steam-engines.	413,641	Oct. 29	2756	715	49 567	
Babcock, Ezra S., assignor of one-half to P. M. Green, Milton, Wis. Pump.	412,942	Oct. 15	1706	445	49 345	
Babcock, Sylvester P., Adrian, Mich. Hand corn-plaster	414,003	Oct. 29	3285	858	49 675	
Bahndreier, Charles A. I. (See Brickenstein and Bahndreier.)						
Bahndreier, Charles A. I., assignor of one-half to H. Fisher, Baltimore, Md. Water-feeder for boilers.	414,004	Oct. 29	3287	858	49 675	
Bachman, Archibald P., Trenton, N. J. Pile-cutting mechanism for double-pile-fabric looms.	414,670	Nov. 12	763	197	49 899	
Bachmann, Ulrich, St. Helena, Cal. Cartridge-loading machine	414,964	Nov. 12	1199	312	49 982	
Bacrus, Edward, Rochester, N. Y. Mechanism for operating brakes.	415,338	Nov. 19	1783	313	49 1096	
Baron, Harry R., et al. (See Brandt, Charles M., assignor.)						
Baron, Henry D. (See Hanscom, William W., assignor.)						
Baron, William S., Bridgeton, assignor of one-half to R. Newton and M. S. Westcott, Fairton, N. J. Can-capping machine.	415,160	Nov. 12	1515	391	49 1037	
Baron, William S., and S. L. Holsinger, Tiffin, Ohio. Apparatus for burning hydrocarbon oil.	413,473	Oct. 22	2292	648	49 306	
Bartsche Aullin and Soda Fabrik. (See Bohn, René, assignor.)						
Bartsche Aullin and Soda Fabrik. (See Dändlicher and Bernthsen, assignors.)						
Batlam, Edgar B., San Francisco, Cal. Device for supplying and measuring air for carburetors.	414,276	Nov. 5	143	36	49 766	
Baer, Henry A., Joliet, Ill. Slime settler or separator	417,892	Dec. 24	2444	654	49 1880	
Baer, John, Philadelphia, Pa. Machine for heating and combing cut-pile fabrics.	412,450	Oct. 6	970	254	49 197	
Baer, John, Buffalo, N. Y. Combined stove-pipe thimble and fastener.	417,591	Dec. 17	2084	553	49 1793	
Begley, Allen, Ypsilanti, Mich. Railway joint.	416,150	Oct. 3	3	1	49 1363	
Begshaw, Walter H., Lowell, Mass. Curling-tongs.	417,462	Dec. 17	1944	519	49 1769	
Baley, Charles H., Rock Island, Quebec, Canada, assignor to himself, and L. S. Way, Lawrence, Mass. Dinner-pail.	414,363	Nov. 5	870	68	49 792	
Balley, Farrell & Company. (See Franklin, Edward A., assignor.)						
Balley, Frank H., and A. M. Dimmick, Wilkes-Barre, Pa. Air-moistener.	414,179	Nov. 5	2	1	49 739	
Balley, Henry C., Edinburg, Ind. Wooden mat.	417,215	Dec. 17	1578	427	49 1699	
Balley, Henry C., Edinburg, Ind. Blank-slitting machine.	417,216	Dec. 17	1579	428	49 1699	
Balley, James W., Wallis Station, Tex. Condenser for baling-presses.	414,671	Nov. 12	764	107	49 899	
Balley, John W., et al. (See Wilkinson, George, assignor.)						
Balley, Josiah, Wilmington, Ohio. Auger.	413,139	Oct. 22	2043	531	49 417	
Balley, Martin N., assignor to himself and R. H. Porteous, New York, N. Y. Lace-fastener.	415,433	Nov. 19	1924	500	49 1123	
Balley, Victor C., assignor to Advance Thresher Company, Battle Creek, Mich. Band-cutter and feeder.	412,064	Oct. 1	413	106	49 83	
Balley, William. (See Curley, Thomas, assignor.)						
Ballard, George C., assignor to J. H. Bunnell & Co., New York, N. Y. Electric-light fixture.	418,636	Dec. 31	3764	983	49 2140	
Bainbridge, William, Omaha, Nebr. Ore-separator.	413,013	Oct. 15	1810	473	49 366	
Bainbridge, William, Omaha, Nebr. Ore-mill.	413,014	Oct. 15	1812	474	49 366	
Bair, Alvin. (See Copper and Bair.)						
Baird, George D., Amboy, Ill. Corn-planter.	414,780	Nov. 12	925	239	49 930	
Baird, George W., U. S. Navy. Steam generator or evaporator.	417,893	Dec. 24	2445	654	49 1880	
Baird, John, New York, N. Y. Boiler.	411,882	Oct. 1	153	40	49 32	
Baird, John, New York, N. Y. Boiler.	415,135	Nov. 12	1433	375	49 1030	
Baird, John M., and R. Sundstrom, Topeka, Kans. Rain-water cut-off.	416,391	Dec. 3	360	95	49 1440	
Baird, Joseph H., Oakville, Conn., assignor to G. W. McGill, Riverdale, N. Y. Machine for making pins for pin-fasteners.	418,426	Dec. 31	3329	923	49 2093	
Baird, Oliver, Parkhill, and J. Cornell, Thetford, Ontario, Canada. Machine for re-pressing bricks.	412,220	Oct. 8	652	171	49 136	
Baird, Rudolf C., Chipley, Fla. Holdback.	411,774	Oct. 1	3	1	49 3	
Baker, Alonzo F., et al. (See Monday, Robert, assignor.)						
Baker, Chauncey D., and L. G. Bronson, Chicago, Ill. Electrical apparatus.	417,217	Dec. 17	1580	428	49 1700	
Baker, Daniel, Pettit, Pa. Gate.	416,363	Dec. 31	3550	874	49 2056	
Baker, Daniel K., Chicago, Ill., and C. H. Green, assignors to New York Brass Company, New York, N. Y. Gas-burner.	412,094	Oct. 8	1349	350	49 872	
Baker, Daniel W., Boston, Mass. Vest-adjuster.	414,364	Nov. 5	871	68	49 792	
Baker, David, Jr. (See Paine and Baker.)						
Baker, Ellis H., New Haven, Conn. Cable terminal bead and protector.	413,429	Oct. 22	2040	634	49 495	
Baker, Francis M., assignor of one-half to J. H. Pence and L. L. Kortos, St. Louis, Mo. Awning-blind hinge.	417,623	Dec. 17	2209	588	49 1219	
Baker, Gardner W., Painesville, Ohio. Clamp.	417,397	Dec. 17	1713	461	49 1736	
Baker Heater Company. (See Baker, William C., assignor.)						
Baker, James S., Glen Rock, Pa. Endless straw-carrier.	415,434	Nov. 19	1924	500	49 1123	
Baker, James, St. Louis, Mo. Gas-burner.	414,169	Nov. 5	3	1	49 739	
Baker, James S., Toronto, Ontario, Canada. Lock-binge.	415,066	Nov. 12	1368	357	49 1017	
Baker, James S., assignor to Stewart & Baker, Rochester, N. Y. Hame-fastener.	412,338	Oct. 8	849	222	49 172	
Baker, John S., deceased; J. H. Gove, Westerly, R. I., administrator. Windlass.	415,036	Nov. 12	1361	339	49 1003	
Baker, Joseph M., Louisville, Ky. Saw-table.	415,435	Nov. 19	1925	501	49 1124	

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. et	Vol.	Page.
Baker, Peter, Keota, Iowa. Four-horse equalizer	416,822	Dec. 10	996	929	49	1574
Baker, Theodore J., Salt Lake City, Utah Ter. Bedclothes-clamp	413,773	Oct. 29	2045	768	49	603
Baker, Thomas J., and W. J. Hockett, Ark. Snow attachment	415,692	Nov. 26	2353	615	49	1217
Baker, William C., assignor to Baker Heater Company, New York, N. Y. Heating apparatus for railway-cars	411,915	Oct. 1	292	52	49	41
Baker, William H., Trenton, N. J. Attachment for pottery-turning machines	417,967	Dec. 24	2728	717	49	1927
Baker, William S. G., Baltimore, Md. Cart-truck	415,892	Nov. 26	2636	689	49	1373
Baker, Wilson M. (See Miller, Charles A., assignor.)				690		
Bakke, Ole S., and O. Halgrimsen, New Richmond, Minn. Permutation-lock	414,135	Oct. 29	3479	903	49	715
Baksthan, Andrew S., Watertown, Dak. Ter. Rotary snow-plow	415,317	Nov. 19	1749	434	49	1091
Baldwin, Cyrus W., Yonkers, N. Y., assignor to Hydraulic Elevator Company, Chicago, Ill. Starting and stopping device for elevators	416,983	Dec. 10	1217	334	49	1620
Baldwin, Cyrus W., Yonkers, N. Y., assignor to Hydraulic Elevator Company, Chicago, Ill. Electro-valve-operating device for elevators	417,132	Dec. 10	1457	325	49	1666
Baldwin, George, Willimantic, Conn. Wall-pocket	415,436	Nov. 19	1926	501	49	1124
Baldwin, James S. (See Wayland and Baldwin.)				502		
Baldwin, Myron T., La Grange, Ill. Paper-cutter	414,669	Nov. 5	735	194	49	889
Baldwin, William D. (See Brooks and Baldwin.)				195		
Balfour, Emma. (See Bomar, Mattie A., assignor.)						
Balfour, Emma, Sherman, Tex. Device for holding paper over cakes in ovens	416,240	Dec. 3	138	39	49	1396
Ball, Alice M., et al. (See Gardner, Marshall, assignor.)						
Ball, Alice M., et al. (See Gardner and Stone, assignors.)						
Ball, Alice M., et al. (See Stone, James, assignor.)						
Ball, Cortland, Indianapolis, Ind. Retort-vaporizer	413,885	Oct. 29	3108	810	49	636
Ball, John N., Kansas City, Kans. Kitchen-cabinet	413,842	Oct. 29	3037	791	49	691
Ball, Phinehas, assignor to Union Water Meter Company, Worcester, Mass. Piston meter	417,308	Dec. 17	1714	799	49	1736
Ballard, George M. (See Munford, Ichabod H., assignor.)	416,887	Dec. 10	1099	296	49	1504
Ballard, George M., and S. Mason, Newark, N. J., said Mason assignor to said Ballard. Trunk-catch	413,430	Oct. 22	2441	634	49	495
Ballou, Eugene H., Pawtucket, R. I. Shuttle-motion for looms	416,543	Dec. 3	286	160	49	1486
Balsley, Upson H., Philadelphia, Pa. Electrical conductor	417,402	Dec. 17	1861	498	49	1752
Balston, Clyde C., Brooklyn, N. Y. Combined plate heater and receiver	413,474	Oct. 22	2563	649	49	506
Bancroft, John S., assignor to W. Sellers & Company, (Incorporated), Philadelphia, Pa. Means for operating the die-heads of bolt-threading machines	417,650	Dec. 17	2229	599	49	1828
Randholz, John D., Milwaukee, Wis. Bake-oven	413,943	Oct. 15	1707	445	49	345
Bang, Ivar A. F., and M. C. A. Ruffin, Paris, France. Purifying acetic acid	414,277	Nov. 5	145	36	49	766
Bangs, David E., Medford, Mass. Sad-iron heater	412,585	Oct. 8	1177	36	49	538
Bangs, Edwin D., Milwaukee, Wis. Oil-cup	414,278	Nov. 5	147	36	49	768
Banks, John H., Harrisville, Me. Machine for grinding horse-shoe-calks	416,544	Dec. 3	588	160	49	1488
Baptist & Homan. (See Baptist, William, assignor.)						
Baptist, William, assignor of one-half to Baptist & Homan, New Orleans, La. Sawing-machine	416,088	Nov. 26	2955	770	49	1340
Barber, Arthur J., Auburn, assignor of one-half to C. D. Gaylord, Sodus, N. Y. Wrench	417,908	Dec. 24	2730	718	49	1927
Barber Asphalt Paving Company. (See Greene, Francis V., assignor.)						
Barber, Byron M., Ashtabula, Ohio. Harrow	413,827	Oct. 15	1540	402	49	315
Barber, Frank W. (See Johnson and Barber.)				403		
Barber, Hiram, Chicago, Ill. Spring-draft attachment	411,891	Oct. 1	117	30	49	25
Barber, Hiram, Chicago, Ill. Spring draft attachment for vehicles	415,318	Nov. 19	1751	455	49	1091
Barber, Michael A. (See Free and Barber.)						
Barber, Michael A. (See Johnson and Barber.)						
Barber, Michael A. (See Wiggin, Andrew, assignor.)						
Barber, Ohio C. J., A. Baughman, Akron, Ohio, and M. Young, Frederick, Md., assignors to Diamond Match Company, of Ohio. Machine for making match-sticks	416,888	Dec. 10	1100	397	49	1594
Barclay, William P., Chicago, Ill. Car-wheel-balancing machine	412,360	Oct. 8	851	222	49	173
Bard, James H., Oakland, Oreg. Fruit-drier	413,125	Oct. 15	1980	516	49	322
Barclay, William, Kearney, N. J. Stand for exhibiting goods	414,181	Nov. 5	4	1	49	740
Barian, George W., Harrisville, Me. Machine for grinding horse-shoe-calks	417,392	Dec. 17	2065	553	49	1794
Barker, David, assignor to Canton Glass Company, Canton, Ohio. Fruit-jar	418,266	Dec. 31	3191	835	49	2025
Barker, E. D., et al. (See McKean, George, assignor.)						
Barker, Edward D., et al. (See Head, William F., assignor.)						
Barker, Joseph, Carson City, Nev. Grain-rule	414,765	Nov. 5	272	60	49	793
Barker, Milton E., Minneapolis, Minn. Truss	414,182	Nov. 5	5	2	49	740
Barker, Thomas L. (See Foster and Barker.)						
Barker, Wendell A., Chicago, Ill. Car starter and brake	414,183	Nov. 5	7	2	49	740
Barless, John. (See Barless, Robert and J.)						
Barless, Robert, Harmony, and J. Barless, Johnston, Wis. Fork for cakes	416,250	Dec. 3	138	39	49	1396
Barlow, Charles, Cookshire, Quebec, assignor to G. A. Le Baron, Sherbrooke, Canada. Clothes-pin	415,184	Nov. 19	1547	399	49	1051
Barnard, Benjamin F. (See Williams, John H., assignor.)						
Barnard, Edward. (See Thompson, Joseph, assignor.)						
Barnard, George A., New York, N. Y. Separator	416,889	Dec. 10	1102	300	49	1595
Barnard, Herbert, Lotus, Ind. Thill-coupling	417,909	Dec. 24	2731	718	49	1927
Barnes, Joseph E. (See Sherwood, Sidney G., assignor.)						
Barnes Company, W. Y. & N. Y. (See Barnes, William F., assignor.)						
Barnes, David L., Chicago, Ill., assignor to R. R. Hazard, New York, N. Y. Draw-bar for railway-cars	418,150	Dec. 31	3025	795	49	1991
Barnes, David L., Chicago, Ill., assignor to R. R. Hazard, New York, N. Y. Railway-car body frame	418,151	Dec. 31	3026	795	49	1992
Barnes, Ezra E., Philadelphia, Pa. Carpet-holder	417,767	Dec. 24	2428	640	49	1870
Barnes, Gilbert, et al. (See Smith, George A., assignor.)						
Barnes, John L., Peru, Ind. Dish-washer	414,279	Nov. 5	148	37	49	767
Barnes, Joshua, Brooklyn, N. Y. Yeast-cake	413,886	Oct. 29	3111	49		626
Barnes, Lewis, Delvidere, N. J., assignor of one-half to W. A. Nichols, Philadelphia, Pa. Fence	416,353	Dec. 3	303	80	49	1429

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. &c.	Vol.	Page.
Barnes, William F., assignor to W. F. & J. Barnes Company, Rockford, Ill. Mechanism for operating scroll-saws, &c.	413,475	Oct. 22	2506	649	49	507
Barnett, William, Mansfield, assignor to Garfield Injector Company, Wadsworth, Ohio. Steam-injector.	417,463	Dec. 17	1944	519	49	1769
Barney, William C., Baltimore, Md. Telephone instrument.	417,463	Dec. 17	2861	519	49	1928
Barnhart, John, Altoona, Pa. Steam-boiler.	412,718	Oct. 15	1394	365	49	258
Barns, Alfred L., Tiffin, Ohio. Lantern.	415,693	Nov. 26	2353	615	49	1217
Barr, John, Bridgeport, Conn. Window.	414,965	Nov. 12	1203	313	49	983
Barr, Madison. (See Staples, Hiram, assignor.)						
Barr, Samuel W., Mansfield, Ohio. Store-service apparatus.	413,476	Oct. 22	2507	649	49	507
Barr, Samuel W., Mansfield, Ohio. Store-service apparatus.	413,477	Oct. 22	2510	650	49	508
Barr, Samuel W., Mansfield, Ohio. Store-service apparatus.	413,478	Oct. 22	2512	651	49	508
Barr, Samuel W., Mansfield, Ohio. Store-service apparatus.	413,479	Oct. 22	2513	651	49	509
Barr, Samuel W., Mansfield, Ohio. Store-service apparatus.	413,480	Oct. 22	2515	651	49	509
Barr, Samuel W., Mansfield, Ohio. Store-service apparatus.	413,481	Oct. 22	2516	651	49	510
Barr, Thomas L., Plymouth, Ohio. Thill-coupling.	413,361	Oct. 22	2320	616	49	481
Barrett, Albert. (See Stockwell and Barrett.)						
Barrett, Ambrose J., Prairieville, Mich. Vehicle-spring.	413,135	Oct. 15	1961	516	49	399
Barrett, James, Walpole, N. H. Clamp-coupler for winding mechanisms.	417,133	Dec. 10	1458	369	49	1667
Barrett, James O., Meadville, Pa., assignor to Meadville Vise Company, (limited.) Combined vise and screw-cutting and drilling device.	418,637	Dec. 31	3766	933	49	2141
Barrett, John A., Brooklyn, N. Y. Induction-coil apparatus.	414,635	Nov. 5	667	139	49	876
Barrett, John A., Brooklyn, N. Y. Electric battery.	414,627	Nov. 5	689	179	49	876
Barrett, Jonathan, Melrose, Mass. Counter-holder for shoe-sewing machines.	413,706	Oct. 29	2852	744	49	545
Barrett, Josiah, Allegheny, Pa. Lifting-jack. (Release.)	11,638	Nov. 5	757	185	49	989
Barrett, Josiah, Allegheny, Pa. Lifting-jack. (Release.)	11,651	Dec. 31	3607	983	49	2150
Barrett, Reinhart K., et al. (See Pfautz, Daniel M., assignor.)						
Barrett, Samuel D. (See Stafford and Barrett.)						
Barrett, Sidney H., assignor to D. Holland, Springfield, Mass. Electric car-lighting.	413,160	Oct. 22	2044	531	49	418
Barrow, Nell L., Barton, Vt. Cake-mixer.	415,893	Nov. 26	2638	690	49	1274
Barrows, Edward F., Chicago, Ill. Latch.	417,970	Dec. 24	2738	718	49	1928
Barry, John F., et al. (See Truist, William F., assignor.)						
Barry, William, Syracuse, N. Y. Door-hanger.	418,638	Dec. 31	3767	934	49	2141
Bartholomew, Grove S., Garvanza, Cal. Well-boring machine.	417,352	Dec. 17	1789	421	49	1739
Bartholomew, Henry. (See Hart and Bartholomew.)						
Barlan, August R., Plainfield, N. J. Cutting attachment for printing-presses.	413,887	Oct. 29	3111	810	49	636
Bartlett, Charles H., assignor to Spring Curry Comb Company, South Bend, Ind. Curry-comb.	416,545	Dec. 3	590	161	49	1467
Bartlett, Cosam T., Warsaw, N. Y. Tank-loop.	417,381	Dec. 17	1836	492	49	1747
Bartlett, Frank L., Portland, Me. Apparatus for manufacturing pigments.	415,185	Nov. 19	1548	380	49	1051
Bartlett, Frank L., Portland, Me. Apparatus for refining funne.	415,186	Nov. 19	1551	380	49	1051
Bartlett, Frank L., Portland, Me. Steam-pipe covering.	417,758	Dec. 24	2430	640	49	1870
Bartlett, Samuel H., New York, N. Y. Friction-generator.	416,602	Dec. 3	769	210	49	1522
Bartlett, Wallace A., Washington, D. C., assignor, by mesne assignments, to Pneumatic Dynamite Gun Company, New York, N. Y. Pneumatic cannon and supply system.	412,717	Oct. 15	1391	364	49	287
Bartling, Thomas K., et al. (See Cook, Joshua F., assignor.)						
Barton, Edwin, Paterson, N. J. Mechanism for operating drop shuttle-boxes in looms.	414,366	Nov. 5	3274	670	49	793
Barton, Isaac T., Battle Creek, Mich. Metallo thrashing-machine or separator.	415,123	Dec. 31	3677	795	49	1992
Bassett, Carroll F. (See Cliechester, Lewis S., assignor.)						
Bassett, Charles W., Alameda, Cal. Buckle.	413,393	Oct. 29	2392	617	49	481
Bassett, George W., Lower Lake, Cal. Combined pulverizer and cultivator.	413,649	Oct. 29	2757	715	49	567
Bastian, Charles L., Chicago, Ill. Making tubular swivel-joints.	415,694	Nov. 26	2355	615	49	1217
Bastian, Gotthold. (See Bastian, Jacob, assignor.)						
Bastian, Jacob, assignor to G. Bastian, Danville, N. Y. Sash-balance.	416,207	Dec. 3	83	24	49	1365
Battelle, Achille, New York, N. Y. Folding gate.	417,838	Dec. 24	2621	691	49	1907
Batchelor, Telford C. (See Butterfield and Batchelor.)						
Bates, Andrew J., Summumdwat, Kans. Cultivator for brick-yards.	413,489	Oct. 29	2517	678	49	510
Bates, Irving W., Barre, Vt. Horse-helmet fastening.	414,673	Nov. 12	766	198	49	899
Bates, John C., Aspen, Colo. Mechanical telephone.	414,260	Nov. 5	149	37	49	767
Bates, John W., Brooklyn, N. Y. Sanding attachment for cars.	414,303	Nov. 12	1097	282	49	922
Bates, Oswald, Milwaukee, Wis. Cleave.	417,854	Dec. 24	2446	695	49	1881
Bates, Peter S., York, Pa. Electric meter.	415,491	Nov. 19	3024	525	49	1144
Bates, Samuel L., Cedar Rapids, Iowa. Steam-engine.	418,548	Dec. 31	3629	948	49	2115
Bates, Stockton, Philadelphia, Pa. Spindle-support for spinning spindles.	416,286	Dec. 3	500	53	49	1407
Bates, Stockton, E. F. Shaw, and G. M. Von Culin, Philadelphia, Pa. Spindle-support for spinning machinery.	416,287	Dec. 3	202	53	49	1408
Bath, William F., Warner, Idaho Terr. Registering and indicating device for mines.	414,336	Oct. 8	7178	398	49	320
Batter, Frank, Shido, Cal., assignor to P. C. Levar, Sumner, Oreg. Shirt.	418,630	Dec. 31	3769	934	49	2141
Battershall, Joseph W., Attleborough, Mass. Mechanical cut-out.	414,966	Nov. 12	1204	313	49	983
Battin, Horace M., et al. (See Nickels, John, assignor.)						
Battin, Lambert, B. Elb, Hamburg, N. J. Mold for cement wrought-iron pipes.	412,319	Oct. 8	735	204	49	161
Bauder, Emil F., Cincinnati, Ohio. Door-spring.	414,367	Nov. 5	276	70	49	794
Bauder, Federico, Paris, France. Refining sugar.	416,709	Dec. 10	837	228	49	1544
Bauer, Charles A., assignor of one-half to W. A. Warder, Bushnell & Glessner Company, Springfield, Ohio. Mechanism for driving ratters or other machinery.	416,984	Dec. 10	1319	334	49	1020
Bauer, Charles V., assignor of one-half to J. L. Dunkap, Louisville, Ky. Harness-loop.	415,190	Nov. 19	1549	380	49	1051
Bauer, Cornelius, Cincinnati, Ohio. Buggy-hook.	415,373	Nov. 19	1835	478	49	1106
Bauer, Cornelius, Cincinnati, Ohio. Binding for buggy-tops.	417,218	Dec. 17	1582	498	49	1700
Bauer, Henry, Indianapolis, Ind. Extension-table.	415,376	Nov. 19	1836	479	49	1106
Bauer, Jacob, Dayton, Ohio. Wrench-wheel.	414,494	Nov. 5	467	118	49	835
Baughman, Joseph A. (See Barber, Baughman, and Young.)						
Baum, Heinrich, Frankfurt-on-the-Main, assignor to F. von Heyden Nachfolger, Radebeul, Germany. Dithionousulphic acid.	416,318	Dec. 3	249	.....	49	1418
Bauman, Samuel, St. Louis, Mo. (See Daniel, Thomas J., assignor.)	417,634	Dec. 24	2555	672	49	1903
Bauman, Samuel H., et al. (See Daniel, Thomas J., assignor.)						
Baumer, Frederick W. (See Nelson, Walton, assignor.)						
Baur, Albert, Gispersleben, near Erfurt, Germany. Making artificial musk.	416,710	Dec. 10	839	.....	49	1544
Baur, Wilhelm, and J. V. V. Booraem, Brooklyn, N. Y. Apparatus for packing out sugar.	416,319	Dec. 3	250	64	49	1418

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.
			Spec.	Div ²	
Baxendale, Lloyd S., <i>et al.</i> (See Conshake, William and T. S., assignors.)					
Bay, Friedrich, assignor to Farbwerke, vormals F. Bayer & Co., Elberfeld, Germany. Fixing azo dyes	418,123	Dec. 31	3029	796	49 1992
Bayles, James C., East Orange, N. J. Manufacture of composite metallic pipe	418,134	Dec. 31	3030		49 1992
Bayley, Richard W., assignor to Westinghouse Air Brake Company, Pittsburg, Pa. Air-brake apparatus for cars	412,695	Oct. 8	1350	351	49 272
Bayley, William. (See Whiteley and Bayley.)					
Baylis & Crandall. (See Berry, James, assignor.)					
Bays, William W., Knoxville, Tenn. Strap-fastening for trunks	413,483	Oct. 22	2518	652 653	49 510
Beach, Adam, Columbus, Ohio, assignor to A. R. Cory, E. S. Devereaux, New York, N. Y., and T. A. Simons, Columbus, Ohio. Store-service apparatus	416,546	Dec. 3	591	161	49 14-7
Beach, Elias, assignor to Wyant Manufacturing Company, Chicago, Ill. Roller-shade holder	411,775	Oct. 1	4	1	49 3
Beach, Elias, assignor to himself and R. Lyman, Chicago, Ill. Mop-wringer	414,628	Nov. 5	699	179	49 877
Beal, Francis R., Northville, Mich. Furniture-joint	414,629	Nov. 5	699	180	49 877
Beals, Ebenezer, Norwich, assignor to J. B. Atherton, L. D. Beck, and A. Dey, New York, N. Y. Machine for winding wire	415,601	Nov. 19	2268	576	49 1181
Beaman, Edwin T., New York, N. Y. Fastening device for pictures	417,819	Dec. 17	1552	429	49 1709
Bean, John, Los Gatos, Cal. Pump	417,805	Dec. 21	2477	655	49 1-1
Bean, John, Los Gatos, Cal. Spray-nozzle	414,067	Nov. 5	112	194	49 868
Bean, Theodore W., assignor to Continental Steel Car Wheel Company, Norristown, Pa. Machine for rolling car-wheels. (Release)	417,464	Dec. 17	1946	519	49 1769
Bean, Wilson J., Lake Village, N. H. Barrel-cover	411,048	Dec. 24	3015	790	49 1560
Bear, Levi. (See Haase, Joseph, assignor.)	415,014	Nov. 12	1270	331	49 997
Beard, Thomas M., and J. Pasman, Colchester, county of Essex, England. Shaping-machine table	415,015	Nov. 12	1271	332	49 997
Beard, Joseph A., Liberty, Miss. Harrow	414,896	Nov. 12	1098	292	49 982
Beardslee, William F., and C. Russell, New York, N. Y., assignors to Manufacturer's Special Machine Company, Danbury, Conn. Machine for trimming fabrics	413,608	Oct. 22	2704	703	49 547
Beardsley, Frank E., assignor of one-half to W. B. Sullivan, Travers City, Mich. Axle-cutter	412,065	Oct. 1	415	107	49 83
Beasley Supply Company. (See Egge, Frederick, assignor.)					
Beasley, William F., Oxford, N. C. Padlock	415,187	Nov. 19	1532	400	49 1051
Beason, Albert E., Andover, Iowa. Eng-gate for wagons	411,610	Nov. 10	2349	613	49 1259
Beattie, James, assignor to Russell Manufacturing Company, Middletown, Conn. Buckle	416,985	Dec. 10	1251	334	49 1630
Beattie, Samuel, Cleveland, Ohio. Boot or shoe	411,776	Oct. 1	5	2	49 3
Beaumont, O. T. (See Wiegand, Andrew J., assignor.)					
Beazell, John S., South Bethlehem, Pa. Washing-machine	412,587	Oct. 8	1180	310	49 239
Beck, Charles W., Chicago, Ill. Automatic door-register	412,588	Oct. 8	1181	310	49 239
Beck, George M., Lebanon, Ind. Washing-machine	412,719	Oct. 15	1395	365	49 288
Beck, Louis D., <i>et al.</i> (See Beals, Ebenezer, assignor.)					
Beck, William, and H. Graden, Lawrence, Mass. Stopping mechanism for looms	414,854	Nov. 12	1031	266	49 950
Becker, Henry, Cleveland, Ohio. Candlestick	412,065	Nov. 25	2471	733	49 1325
Becker, Johannes P., San Francisco, Cal. Safety gas-cock	412,066	Oct. 1	416	107	49 84
Becker, John L., Hartwell, assignor to Blymyer Iron Works Company, Cincinnati, Ohio. Evaporating-pans	412,231	Oct. 8	634	172	49 136
Becker, John W., Cincinnati, Ohio. Non-conducting hand for coals, &c.	413,213	Oct. 22	2250	593	49 464
Becker, Will E., Polo, assignor of one-half to C. G. Ormayer, Chicago, Ill. Crapper	415,393	Nov. 19	1633	427	49 1072
Beckfeld, John C., Allegheny, Pa. Operating gas-engines	417,024	Dec. 17	2210	568	49 1819
Beckmann, William E. (See Hahbert and Beckmann.)					
Beckwith, Nelson, Cambridge, Mass. Elevator-hatchway	413,643	Oct. 29	2738	716 717	49 568
Beecraft, William, Beaumont, Kans. Device for catching and holding animals	416,046	Nov. 26	2282	553	49 1325
Bedell, John R., Mount Valley, Kans. Churn	415,356	Nov. 19	1813	473	49 1101
Beche, Charles S., Racine, Wis. Wagon-gear	413,888	Oct. 29	3112	811	49 637
Beche, Eugene W., Milwaukee, Wis. Temperature-regulator	412,013	Oct. 1	343	79	49 69
Beecher, Luther, Detroit, Mich. Constructing tunnels	413,323	Oct. 22	2249	617	49 461
Beecher, Luther, Detroit, Mich. Tunneling-ram	413,324	Oct. 22	2250	618	49 462
Beeman, George C., Minneapolis, Minn. Grain-separator	413,161	Oct. 22	2046	527	49 418
Beermaekke, John P., <i>et al.</i> (See King, James M., assignor.)					
Beers, Louis G., Chicago, Ill. Wire gate and fence	417,971	Dec. 24	2733	719	49 1928
Beggs, Eugene, Paterson, N. J. Boiler	415,894	Nov. 26	2639	690 691	49 1274
Beguz, Blasius, Felstritz, Austria-Hungary. Wire-drawing machine	413,869	Oct. 29	3113	811	49 637
Behne, Joseph H., assignor to M. Burns & Co., Leavenworth, Kans. Furnace	417,463	Dec. 17	1948	519 520	49 1770
Behn, Carl, assignor of one-half to Howard Iron Works, Buffalo, N. Y. Valve-operating mechanism for elevators	414,005	Oct. 29	3291	858	49 676
Behrens, Friedrich D., Eron, Ohio. Buckle	417,777	Oct. 1	6	3	49 4
Behrens, William S., Louis, Mo. Car-pedestal	416,773	Dec. 10	293	290	49 1559
Belger, Martin V., and A. Elser, Milwaukee, Wis. Lift-hoot	416,547	Dec. 3	583	161	49 14-8
Belcher, Frank S., Charlotte, Mich. Fluid can and pump	415,162	Oct. 22	2050	532	49 419
Belden, Emerson. (See Crompton, Albert, assignor.)					
Belden, Robert. (See Young and Belden.)					
Belding Manufacturing Company. (See Ramey, Fred E., assignor.)					
Belding Motor and Manufacturing Company. (See Belding, Warren S., assignor.)					
Belding, Thomas C. (See Snyder and Belding.)					
Belding, Thomas C., Canton, assignor to Universal Plow Company, Wooster, Ohio. Plow-clevis	415,016	Nov. 12	1273	333	49 997
Belding, Warren S., Englewood, assignor to Belding Motor and Manufacturing Company, Chicago, Ill. Armature-plate	415,095	Nov. 26	2336	613	49 1217
Belding, Warren S., Englewood, assignor to Belding Motor and Manufacturing Company, Chicago, Ill. Coil-guard for armatures	415,096	Nov. 26	2338	616	49 1218
Belding, Warren S., Englewood, assignor to Belding Motor and Manufacturing Company, Chicago, Ill. Armature	415,097	Nov. 26	2360	616	49 1218
Belding, Warren S., Englewood, assignor to Belding Motor and Manufacturing Company, Chicago, Ill. Lubricator for armatures	415,805	Nov. 26	2514	656	49 1348
Belding, Warren S., Englewood, assignor to Belding Motor and Manufacturing Company, Chicago, Ill. Armature for electric machines	415,806	Nov. 26	2515	657	49 1349
Bell, Harold J., Gloucester City, N. J., assignor to Welshach Incandescent Gas Light Company, of New Jersey. Gas-incandescent	413,484	Oct. 22	2221	653	49 510

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Bell, Harold J., Gloucester City, N. J., assignor to Welshach Incandescent Gas Light Company, of New Jersey. Incandescent gas-lamp	416,548	Dec. 3	593	162	49	1428
Bell, Harold J., Gloucester City, N. J., assignor to Welshach Incandescent Gas Light Company, of New Jersey. Gas-pressure regulator	417,134	Dec. 10	1460	336	49	1667
Bell, Harold J., Gloucester City, N. J., assignor to Welshach Incandescent Gas Light Company, of New Jersey. Gas-pressure regulator	417,135	Dec. 10	1462	397	49	1667
Bell, Harold J., Gloucester City, N. J., assignor to Welshach Incandescent Gas Light Company, of New Jersey. Gas-pressure regulator	417,136	Dec. 10	1464	397	49	1668
Bell, Lewis S., Clifty, Ky. Packet	417,220	Dec. 17	1385	429	49	1701
Bell, Louis, and W. H. P. Creighton, Lafayette, Ind. Governor for steam-engines	418,602	Dec. 31	3714	950	49	2131
Bellamy, Charles L., Arlington, N. J. Change-receiver	415,807	Nov. 26	2517	657	49	1349
Belt, Alfred M., et al. (See Henning, Abel, assignor.)						
Bemis, Sumner A., Springfield, Mass. Truck for cable or electric cars	413,890	Oct. 29	3116	812	49	637
Bemis, Sumner A., Springfield, Mass. Truck for cable or electric cars	413,944	Oct. 15	1709	446	49	346
Benda, Patrick H., Pottstown, Pa. Tube cutter	413,838	Oct. 15	1658	453	49	336
Beece, George W., assignor to G. H. Nelson, Detroit, Mich. Inbaler	412,529	Oct. 8	1184	311	49	210
Bender, Adam, Philadelphia, Pa. Cutter-grinding machine	414,368	Nov. 5	277	70	49	794
Bent, Charles W., assignor of one-half to T. T. Haydon, Brooklyn, N. Y. Sash-holder	416,434	Dec. 3	420	113	49	1454
Benedict, Elias T., Aurora, Ill. Car-axle box	416,800	Dec. 10	1104	301	49	1505
Benedict, Gilbert H., Ellenville, and P. M. Furlong, Albany, N. Y. Clamp for matrix-plates	411,883	Oct. 1	155	41	49	32
Bennard, Milton E., Perry, N. Y. Grain-binder	417,833	Dec. 24	2536	673	49	1593
Bennell, Thomas, Newark, N. J., S. Aufhauser, New York, N. Y., and A. Miloe, Newark, N. J., said Bennell and Aufhauser assignors to said Miloe. Watch-protector	413,644	Oct. 29	2761	717	49	568
Benjamin, Edwin, South Evanston, Ill., assignor to Benjamin Machine Company, of Illinois. Resawing-machine	411,575	Oct. 1	284	73	49	58
Benjamin, Edwin, South Evanston, Ill., assignor to Benjamin Machine Company, of Illinois. Feed-works for wood-working machines	412,451	Oct. 8	972	235	49	197
Benjamin, Edwin, South Evanston, Ill., assignor to Benjamin Machine Company, of Illinois. Planing-machine	413,103	Oct. 22	2051	533	49	419
Benjamin, Edwin, South Evanston, Ill., assignor to Benjamin Machine Company. Feed-works for wood-working machines	416,549	Dec. 3	385	162	49	1488
Benjamin, George T. (See Tinker and Benjamin.)						
Benjamin Machine Company. (See Benjamin, Edwin, assignor.)						
Benjamin, Marshall J. (See Corey, George D., assignor.)						
Benner, Burnham R., Lowell, Mass. Liquid-motor	416,435	Dec. 3	421	114	49	1454
Benoett, Edward W., Southampton, N. Y. Wagon-bolster	417,499	Dec. 24	2623	691	49	1907
Bennett, Fred M., assignor of one-half to W. Carroll, New York, N. Y. Electric switch	412,150	Oct. 1	544	143	49	110
Bennett, George H. (See Newman and Bennett.)						
Bennett, John B., Boston, Mass. Key-hole guard	418,267	Dec. 31	3192	636	49	2025
Bennett, Orson W., and W. B. Miller, Washington, D. C. Heating-stove	416,089	Nov. 26	3956	771	49	1349
Bennett, Sanford S. (See Logan, Daniel S., assignor.)						
Bennett, Joseph, Philadelphia, Pa. Levelling-chair, &c.	417,900	Dec. 24	2623	692	49	1907
Bensel, George, and O. T. Mader, New Orleans, La. Shutter-fastener	415,437	Nov. 19	2923	502	49	1125
Bensel, John A., et al. (See Blackstone, Louis, assignor.)						
Benson, Alexander R., Hudson, N. Y. Soldering-salt	417,399	Dec. 17	1716	429	49	1726
Bentley, Charles E., New York, N. Y. Embroidery frame	414,184	Nov. 5	8	2	49	740
Bentley, Charles E., New York, N. Y. Scalloped hall-cushion	414,748	Nov. 12	870	225	49	919
Beutley, John. (See Leach, Heaton, and Beutley.)						
Bentley, Mortimer H., et al. (See Ogilvie, Thomas J., assignor.)						
Bentley, Ira L. (See Mallet, David, assignor.)						
Beran, John W., et al. (See Crook, Adolphus V., assignor.)						
Berg, Walter S., Philadelphia, Pa. Lamp-shade	412,828	Oct. 15	1541	403	49	315
Berg, Walter S., Philadelphia, Pa. Lamp-shade	415,692	Nov. 19	3200	576	49	1151
Berge, Adelshie. (See Berge, Solomon, assignor.)						
Berge, Solomon, assignor to A. Berge, New York, N. Y. Case for delivering cigarettes, &c.	417,137	Dec. 10	1465	397	49	1668
Bergendahl, Lewis J., Pendleton, Ore. Combined rotary plow and harrow	417,405	Dec. 17	1149	530	49	1770
Bergery, David W., Chicago, Ill. Vest-adjuster	416,891	Dec. 10	1105	301	49	1505
Bergin, Axel, Copenhagen, Denmark. Aerating and purifying beer-works or beer	414,673	Nov. 12	766	198	49	899
Bergh, Waldemar, assignor to D. Hummel, Jr., London, England. Means for operating centrifugal machines	415,698	Nov. 26	3953	617	49	1319
Bergmann, Sigmond, New York, N. Y. Ceiling block for incandescent lights	412,361	Oct. 8	838	225	49	172
Bergner, Hugo, Bergedorf, Germany. Centrifugal separating-machine	416,320	Dec. 3	251	45	49	1419
Bergstrom, Gustaf. (See Voegtline and Bergstrom.)						
Bekey, Julius, Grand Rapids, Mich. Friction-joint	413,891	Oct. 29	3118	813	49	638
Berlin Machine Works. (See Osborn and Richards, assignors.)						
Bernd, Adolph, et al. (See Levy, William M., assignor.)						
Berndt, Emil. (See Weis and Berndt.)						
Berone, Arthur W., assignor, by mesne assignments, of one-half to B. W. Taylor, New Orleans, La. Passenger-fare collector	414,185	Nov. 5	11	2	49	741
Bernas, George H., Brooklyn, N. Y. Therapeutic pad	414,967	Nov. 12	1206	313	49	983
Berensheim, Heinrich A. (See Dändliker and Berensheim.)						
Berry, Edwin W. (See Wilson and Berry.)						
Berry, Hiram N., assignor of one-half to M. F. Berry, Meridale, Miss. Planer attachment for saw-mills	417,524	Dec. 24	2558	674	49	1894
Berry, James, Stewarton, county of Ayr, Scotland, assignor to Baylis & Craudall, Utica, N. Y. Warp-kettling machine	417,251	Dec. 17	1586	430	49	1701
Berry, James D., Granite, N. C. Railway-signal	418,135	Dec. 31	3032	796	49	1993
Berry, John L., assignor to G. W. Klump, Williamsport, Pa. Metallic fastener for joints	412,036	Oct. 8	1351	351	49	272
Berry, Louis M. (See Gray, James D., assignor.)						
Berry, Mirajah F. (See Berry, Hiram N., assignor.)						
Berry, Thomas C. (See Cook, Marcus, assignor.)						
Berry, William H., Chester, Pa. Grate-blower	415,603	Nov. 19	2212	577	49	1181
Berryman, Henry B. (See Snedden, William T., assignor.)						
Bertin, Ernest H. E., and P. M. E., Paris, France. Truck	413,431	Oct. 22	2442	634	49	405
Bertram, Paul M. E. (See Bertin, Ernest H. E., and P. M. E.)						
Bertram, Ernst, Klainow, Bohemia, Austria-Hungary, assignor to Pottstown Iron Company, Pottstown, Pa. Composition for basic brick	413,122	Oct. 15	1982	49	399	
Besemer, Andrew A., assignor of one-half to C. E. Williamson, Tecumseh, Mich. Water motor	418,204	Dec. 31	3279	850	49	2038

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Doc.	Vol.	Page.
Blackall, Burton F., <i>et al.</i> (See McBean, John C., assignor.)						
Blackall, Robert C., <i>et al.</i> (See Shephard, John H., assignor.)						
Blackburn, Joel S., Salt Lake City, Utah Terr. Truss.....	415,087	Nov. 12	1369	358	49	1017
Blackhall, Edward W., and R. Anderson, York, Ontario, Canada. Elevator for envelope-	417,973	Dec. 24	2736	719	49	1928
machines.....				720		
Blackhall, Edward W., and R. Anderson, Toronto, Ontario, Canada. Device for ginning	418,348	Dec. 31	3327	858	49	3032
envelopes.....				859		
Blackman, Fred S. (See Blackman, George L. and F. S.)						
Blackman, George L. and F. S., Port Allegany, Pa. Thill-coupling.....	413,487	Oct. 22	2526	654	49	511
Blackman, William L., Columbus, Miss. Book-binding.....	416,533	Dec. 3	361	163	49	1490
Blackmore, Jacob E., assignor of one-half to S. J. Wainwright, Pittsburgh, Pa. Caraxle.....	415,955	Nov. 26	2710	714	49	1299
Blackmore, Lawrence R., Newark, N. J. Turner's soldering apparatus.....	414,370	Nov. 5	879	71	49	794
Blackstone, Louis, Jersey City, N. J., assignor of two-thirds to J. A. Bessel, New York,	413,609	Oct. 22	2706	703	49	517
S. Y., and C. D. Halsey, Newark, N. J. Railway wear-plate and brace.....	417,974	Dec. 24	2738	720	49	1929
Blackwell, Francis O., New York, N. Y. Electric-railway contact.....	418,305	Dec. 31	3360	851	49	3039
Blackwell, Willis B. (See Morton, Thomas O., assignor.)						
Blackie, Edwin K., Somerville, Mass. Ventilating buildings.....	418,305	Dec. 31	3360	851	49	3039
Blair, George W. (See Terry, Howell P., assignor.)						
Blais, Joseph, St. Charles, Quebec, Canada. Carriage axle.....	412,453	Oct. 8	974	256	49	198
Blaisdell, Dwight N., Stockbridge, Mich. Fence.....	412,829	Oct. 15	1542	403	49	315
Blake, Frederick D. (See Whitehouse, Robert, assignor.)						
Blake, Harry, Perryburg, N. Y. Snap-hook cover.....	418,490	Dec. 31	3337	925	49	2085
Blake, Robie, Cornish, Me. Sound-transmitter.....	412,234	Oct. 8	860	172	49	137
Blake & Williams. (See Williams, Francis A., assignor.)						
Blanchard, Virgil W., New York, N. Y. Valve.....	414,130	Oct. 29	3180	804	49	716
Blanchard, Virgil W., New York, N. Y. Furnace.....	414,137	Oct. 29	3481	1904	49	716
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Engine and shafting bed	413,895	Oct. 29	3121	811	49	628
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Furnace.....	413,896	Oct. 29	3122	814	49	639
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Brick for furnaces.....	413,897	Oct. 29	3124	815	49	639
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Grate for furnaces.....	413,898	Oct. 29	3125	815	49	640
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Low-water alarm.....	413,899	Oct. 29	3126	816	49	640
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Steam-valve.....	413,900	Oct. 29	3128	816	49	641
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Gas-cooler for furnaces.....	413,901	Oct. 29	3129	816	49	641
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Fuel-feeder for furnaces.....	413,902	Oct. 29	3132	817	49	641
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Gas-trap for chimneys.....	413,903	Oct. 29	3134	817	49	642
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Slide-way for cross-	413,904	Oct. 29	3135	818	49	642
heads.....				819		
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Furnace-wall.....	413,905	Oct. 29	3136	818	49	643
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Steam-boiler.....	413,906	Oct. 29	3137	819	49	643
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Steam-engine.....	413,907	Oct. 29	3138	819	49	643
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Steam-generator.....	413,908	Oct. 29	3140	820	49	643
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Steam-governor.....	413,909	Oct. 29	3142	820	49	644
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Valve-gear.....	413,910	Oct. 29	3144	821	49	644
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Crank-wheel.....	413,911	Oct. 29	3145	821	49	645
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Engine-bed.....	413,912	Oct. 29	3146	822	49	645
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Furnace-door.....	413,913	Oct. 29	3147	822	49	646
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Water-heater.....	413,914	Oct. 29	3149	823	49	646
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Steam-condenser and						
air-heater.....	413,915	Oct. 29	3151	823	49	647
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Furnace.....	413,916	Oct. 29	3153	824	49	647
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Mixing-chamber for fur-						
naces.....	413,917	Oct. 29	3154	824	49	647
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Steam-drum.....	413,918	Oct. 29	3156	824	49	648
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Steam-boiler casing.....	413,919	Oct. 29	3157	825	49	648
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Steam-engine cylinder.....	413,920	Oct. 29	3158	825	49	649
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Steam-condenser and						
air-heater.....	413,921	Oct. 29	3159	826	49	649
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Valve.....	413,922	Oct. 29	3161	826	49	649
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Steam-boiler.....	413,923	Oct. 29	3163	826	49	650
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Steam-boiler.....	413,924	Oct. 29	3164	827	49	650
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Lubricator and cooler						
for shafts.....	413,925	Oct. 29	3165	827	49	650
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Piston-rod packing.....	413,926	Oct. 29	3166	827	49	651
Blanchard, Virgil W., assignor to J. A. Davis, New York, N. Y. Furnace.....	413,927	Oct. 29	3168	828	49	651
Blankart, John, assignor of one-half to S. C. Karrer, Detroit, Mich. Sleigh-runner for ve-						
hicles.....	418,603	Dec. 31	3716	829	49	2132
Blankman, John S., Washington, D. C. Tubular gun-sight.....	416,554	Dec. 3	602	163	49	1490
Blasdel, Henry G., Oakland, Cal. Ore-concentrator belt.....	416,663	Dec. 3	771	210	49	1523
Blatchford, Alfred T., Beaver, Pa. Earthen-tile weather-boarding.....	415,605	Nov. 19	2221	579	49	1182
Blauvelt, Albert, New York, N. Y. Excavating bucket or grab.....	417,975	Dec. 24	2739	720	49	1929
Blee, William C., Manilla, Iowa. End-gate.....	413,164	Oct. 22	2052	533	49	419
Bléha, William V. (See Fife and Bléha.)						
Blessing, James H., Albany, N. Y. Automatic feeder.....	412,910	Oct. 15	1660	433	49	336
Blessing, James H., Albany, N. Y. Compensator-feeder.....	412,911	Oct. 15	1662	434	49	337
Blessing, James H., Albany, N. Y. Apparatus for heating and purifying feed-water.....	412,912	Oct. 15	1664	434	49	337
Biss, Joseph W., Parish, N. Y. Milk-pail support.....	416,887	Dec. 10	1223	335	49	1621
Blittersdorff, Oscar V., assignor to J. B. Sheffield & Son, Sangerites, N. Y. Box.....	416,892	Dec. 10	1106	301	49	1596
Block, Samuel J., Chicago, Ill. Running-gear.....	416,555	Dec. 3	604	164	49	1490
Blosser, Randolph, Scranton, Pa. Bottle-stopper.....	417,139	Dec. 10	1468	398	49	1468
Bloquist, Carl, Pescadero, Cal. Coupling key-board for organs.....	412,454	Oct. 8	975	256	49	198
Blood, Joseph W., assignor of one-half to Plano Manufacturing Company, Plano, Ill. Grain-						
hinder.....	413,016	Oct. 15	1817	475	49	368
Blot, Pierre R., assignor to Count de la Salle de Robemare and E. Latté, Angers, France.						
Paper-file.....	417,534	Dec. 17	2091	555	49	1735

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. &g.	Vol.	Page.
Blue, Montgomery, Port Jefferson, Ohio. Sash-holder	412,067	Oct. 1	417	107	49	84
Bluhm, Julius, Chicago, Ill. Ventilator	415,354	Nov. 19	1633	427	40	1072
Blumenschein, Benjamin. (See Tripold and Blumenschein.)						
Blunt, George. (See Cooper and Blunt.)						
Blundenburgh, Charles M., Riverhead, N. Y. Vehicle-body	413,017	Oct. 15	1823	477	40	368
Blundenburgh, Charles M., Riverhead, N. Y. Vehicle	414,483	Nov. 5	468	119	49	835
Blundenburgh, Charles M., Riverhead, N. Y. Vehicle	415,606	Nov. 19	2521	579	40	1162
Blymeyer Iron Works Company. (See Becker, John L., assignor.)						
Böhrege, Edward C. (See Hauschen and Böhrege.)						
Bolet, Samuel S., Reading, Pa. Fire-kindler	415,808	Nov. 26	2518	.....	49	1349
Boek, Leo, Jr., et al. (See Darling, William H., assignor.)						
Boeker, Oscar S., Tognerville, Utah Terr. Fence-loom	416,392	Dec. 3	369	95	49	1440
Bodemann, Henry W., San Francisco, Cal. Adjustable stove-grate	417,308	Dec. 10	1569	425	49	1689
Boden, Frank, Mason City, Neb. Band-cutter and feeder	417,976	Dec. 24	2740	721	49	1930
Bodenstein, Henry, Staatsburg, N. Y. Cooking or heating vessel	412,952	Oct. 8	976	256	49	129
Boeckh, Charles, Toronto, Ontario, Canada. Combined boot scraper and wiper	414,067	Oct. 29	3204	850	49	677
Boehm, Joseph H., et al. (See Weiss, John, assignor.)						
Boehm, Valentine, et al. (See Weiss, John, assignor.)						
Boeklen, Reinhold, Brooklyn, N. Y., and W. S. Wright, Chicago, Ill. Gas-generating apparatus	416,047	Nov. 26	2883	{ 753 754 }	49	1326
Bogard, William J., Mendon, Mo. Device for dehorning cattle	415,965	Nov. 20	2806	734	49	1310
Boggs, George C. (See Martin, Thomas E., assignor.)						
Boggs, Thomas K., Rome, Ga. Combined cultivator and planter	417,535	Dec. 17	2091	556	49	1795
Bogusch, Gustav, Vallecillo, Mexico, and E. J. Bogusch, deceased; A. Zincke, Llano, Tex., administrator. Dumping car	416,263	Dec. 3	364	96	49	1441
Bogusch, Robert. (See Bogusch, Gustav and R. J.)						
Böhmer, Henry, Mayville, Wis. Straw-cutter	414,969	Nov. 12	1209	314	49	984
Bohn, René, Ludwigshafen-on-the-Rhine, Bavaria, assignor to Badische Anilin und Soda Fabrik, Mannheim, Germany. Trioxhydrophenone	415,088	Nov. 12	1370	.....	49	1017
Bohn, Louis, et al. (See Drexler, Joseph, assignor.)						
Bohnenblust, Arnold. (See Bohnenblust, Romanus and A.)						
Bohnenblust, Romanus and A., Riley, assignors of one-fourth to P. H. Gfeller and T. Mäns, Trill, Kans. Rotary grain-meter	414,750	Nov. 12	873	226	49	920
Boileau, Elmer, assignor, by direct and mesne assignments, to Improved Zig-Zag Grate Bar Company, St. Louis, Mo. Grate for furnaces	418,491	Dec. 31	3338	{ 935 936 }	49	2006
Boker & Co., Hermann. (See Copley, Alfred, assignor.)						
Bolander, Howard E. (See McDonald, Theodore R., assignor.)						
Bolck, Jerome, Conover, N. G. Vehicle-wheel	417,977	Dec. 24	2742	721	49	1930
Bolck, Charles E. (See Martin and Bolck.)						
Boluss, Alfred R., Norwood, Ohio, assignor of one-half to H. J. Ubert, New York, N. Y. Straight-air automatic brake	414,138	Oct. 29	3485	905	49	716
Boma, John, Rochester, N. Y. Heater	415,219	Nov. 19	1752	455	49	1091
Bomar, Mattie A., assignor of one-half to E. Halford, Sherman, Tex. Curved gutter	417,806	Dec. 24	2488	652	49	1881
Bomgardner, Joseph, Shanesville, assignor to L. Miller, Akron, Ohio. Grain-shocking machine	417,978	Dec. 24	2743	722	49	1930
Bond, Charles E. (See Marker, Stephen A., assignor.)						
Bond, Charles E., et al. (See Patrick, Marcus C., assignor.)						
Bond, Hiram G. (See Archbold, George, assignor.)						
Bond, William, Portland, Oreg. Match-making machine	416,028	Nov. 20	2852	746	49	1319
Bond, William E., Chicago, Ill., assignor to Menasha Wooden Ware Company, Menasha, Wis. Kit	419,160	Oct. 1	545	143	49	110
Bonta, James W., Philadelphia, Pa. Telephone receiver	415,700	Nov. 26	2866	617	49	1230
Bonwill, William G. A., assignor to S. S. White Dental Manufacturing Company, Philadelphia, Pa. Dental plugger	418,492	Dec. 31	3339	926	49	2006
Booker, Rudolph C., assignor of one-half to F. Kertz, Chicago, Ill. Fishing-tackle box	418,492	Dec. 31	3339	926	49	2006
Bookwalter, John W., Springfield, Ohio. Churning	418,364	Dec. 31	3320	874	49	2006
Bookwalter, John W., Springfield, Ohio, assignor to Bookwalter Steel and Iron Company, Jersey City, N. J. Converter	415,357	Nov. 19	1614	416	49	1064
Bookwalter Steel and Iron Company. (See Bookwalter, John W., assignor.)						
Boon, John H., White Lake, S. D. Brake and starter for vehicles	412,721	Oct. 15	1308	366	49	229
Boone, Emanuel, Jr. (See Boone, Joseph H. and E., Jr.)						
Boone, Joseph H. and E., Jr., Memphis, Tenn. Strainer for wells	415,440	Nov. 19	1933	503	49	1125
Boornen, John V. (See Baur and Boornen.)						
Boottan, William H., Waterford, assignor to J. Knickerhacker, Troy, N. Y. Hydrant	415,607	Nov. 19	2223	579	49	1163
Borchardt, Julius C., assignor to F. C. Wilson, Chicago, Ill. Fishing-tackle box	414,486	Nov. 5	469	119	49	835
Bordman, John J., Brooklyn, N. Y. Rotary pulverizing-machine	417,970	Dec. 24	2744	722	49	1931
Bordman, John J., Brooklyn, N. Y. Rotary pulverizing-machine	416,252	Dec. 3	141	40	49	1395
Borgfeldt, Nicholas H., Brooklyn, N. Y. Flying-machine	416,323	Dec. 3	145	40	49	1397
Borogoch, James M., et al. (See Monday, Robert, assignor.)						
Borreson, Birre H., Madison, Wis. Vehicle-wheel fender	411,779	Oct. 1	8	2, 3, 4	49	4
Boss, Charles E., North Plainfield, N. J. Color, form, and number board	416,556	Dec. 3	605	164	49	1470
Boss, Martin P., San Francisco, Cal. Stamp-battery	414,371	Nov. 5	281	71	49	795
Bosshard, Charles, Trenton, Ill. Car-door	416,293	Dec. 10	1107	{ 301 302 }	49	1506
Bostain, William J., Cole City, Ga. Dumping-car	411,822	Oct. 1	119	30	49	95
Bostelmann, August H., Lutherville, Ark. Drag-saw	416,994	Dec. 10	1108	302	49	1506
Boston Brass and Tile Company. (See Nye, John, assignor.)						
Boston, Henry G., York, county of York, England. Stopper for bottles holding powders, liquids, or other substances	417,981	Dec. 24	2745	723	49	1931
Boston Musical Instrument Manufactory. (See Esbach, Henry, assignor.)						
Bostrom, Peter, Chicago, Ill. Feed-cutter	415,405	Nov. 19	1878	{ 489 490 }	49	1114
Boswell, John T. (See Henden and Boswell.)						
Bosworth, Charles B., Everett, assignor to Crosby Steam Gage and Valve Company, Boston, Mass. Instrument	412,830	Oct. 15	1543	403	49	316
Bosworth, Harvey, Plattsburg, N. Y. Belt-acting vacuum-gages	418,993	Dec. 31	3321	885	49	1905
Botsford, Frederick G., Erie, Pa. Expansion-trap	416,557	Dec. 3	606	165	49	1480
Botsford, Frederick G., Erie, Pa., assignor of three-fourths to J. N. Hurst, West Dover, Ohio, and C. M. Bryant, Buffalo, N. Y. Pipe-coupling	414,855	Nov. 12	1032	266	49	930
Bottome, Turner D., New York, assignor to J. B. Tibbits, Hoosick, N. Y. Cut-out for incandescent lamps	414,792	Nov. 12	930	241	49	931
Bottome, Turner D., New York, assignor to J. B. Tibbits, Hoosick, N. Y. Manufacture of white lead	414,935	Nov. 12	1140	.....	49	974

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dist.	Vol.	Page.
Boucher, Josiah J. (See Kirk, John A., assignor.)						
Block, John M., Gouverneur, N. Y. Car-coupling	415,809	Nov. 26	2519	657	49	1249
Bondrean, Léandre, Manchester, N. H. Device for conveying coal	415,493	Nov. 19	2031	528	49	1146
Bondrean, Napoleon, Garden, Mich. Car-coupling	415,701	Nov. 26	2367	618	49	1390
Boughton, Claudius Y., Buffalo, N. Y. Seal-press	412,456	Oct. 8	978	257	49	199
Boughton, John W., Philadelphia, Pa. Insect-screens	415,018	Nov. 12	1275	333	49	998
Boughton, John W., Philadelphia, Pa., and J. M. Snidow, Big Stony Creek, Va.; said Snidow assignor to said Boughton. Combined file and try-square	418,493	Dec. 31	3542	926	49	3096
Boughton, William, assignor of one-half to Larrabee Manufacturing Company, Mansfield, Ohio. Carriage-gear	416,446	Dec. 3	422	114	49	1454
Boulanger, Emile, St. Louis, Mo. Banjo	415,019	Nov. 12	1276	333	49	998
Bourne, Philip, Brooklyn, N. Y. Ash-cart	415,895	Nov. 26	2640	691	49	1275
Bouquin, Ferdinand, St. Imier, Switzerland. Shifting mechanism for stem winding and setting watches	412,457	Oct. 8	979	257	49	199
Bouquin, Louis E., assignor of one-half to E. Grace, Detroit, Mich. Injector	415,441	Nov. 19	1935	504	49	1136
Bowditch, Lewis H. (See Skotte, Pierre, assignor.)						
Bowditch, Edward B. (See Bowditch, Nelson S. and E. R.)						
Bowditch, Nelson S. and E. R., Skaneateles, N. Y. Steam-boiler	416,558	Dec. 3	607	165	49	1491
Bowen, Eugene F. (See Craig, Thomas H., assignor.)						
Bowen, James, Pittsburg, Pa. Cinder-car	418,396	Dec. 31	3361	851	49	3030
Bower, John F., Chicago, Ill. Banjo	415,350	Nov. 19	1753	455	49	1092
Bower, John G., et al. (See Fischer, Ernest J., assignor.)						
Bower, Lewis A., assignor to Diamond State Iron Company, Wilmington, Del. Spike	412,831	Oct. 15	1344	404	49	316
Bowers, Tom B., Chester, Pa. Chalk-trough for blackboards	417,693	Dec. 17	2212	568	49	1820
Bowers, Thomas H., Milwaukee, Wis. Machine for printing and bronzing ribbons	412,014	Oct. 1	345	90	49	70
Bowles, Samuel P., et al. (See Walter, David C., assignor.)						
Bowles, Stephen W. (See Newcomb, Albert C., assignor.)						
Bowman, Albert B. (See Wolch, James E., assignor.)						
Bowman, Arthur H., London, England. Tea or coffee pot or similar vessel	413,748	Oct. 29	2905	756	49	596
Bowman, John D., Altoona, Pa. Safety-catch for gas-lights	416,495	Dec. 10	1109	303	49	1506
Bowman, Joseph W., Pittsburg, Pa. Spike-machine	415,494	Nov. 19	2035	528	49	1146
Bowron, Charles W., Oshkosh, Wis. Chalk-trough for blackboards	417,769	Dec. 24	2421	591	49	1876
Bowyer, Charles D., and C. W. Lear, Canadeu, N. J. Bung-spout for barrels	418,157	Dec. 31	3035	737	49	1993
Bowyer, Robert. (See Yocum, John, assignor.)						
Boyd, Frederick C. (See Crepon, Henry T., assignor.)						
Boyd, James A. (See White and Boyd.)						
Boyer, Bassier, Lebanon, Pa. Metallic railway tie and chair	418,158	Dec. 31	3036	737	49	1993
Boyer, Edward C. (See Maxon, Thomas, assignor.)						
Boyer, Edward C., Dayton, Ohio. Chalk-bar	418,106	Dec. 24	2245	772	49	1968
Boyer, Israel D., assignor to National Cash Register Company, Dayton, Ohio. Cash register and indicator	414,008	Oct. 29	3285	800	49	677
Boyer, Israel D., assignor to National Cash Register Company, Dayton, Ohio. Cash register and indicator	414,009	Oct. 29	3300	861	49	678
Boyer, Israel D., assignor to National Cash Register Company, Dayton, Ohio. Cash register and indicator	414,010	Oct. 29	3303	861	49	679
Boyer, Israel D., assignor to National Cash Register Company, Dayton, Ohio. Cash-register	416,029	Nov. 26	2853	747	49	1320
Boyer, Jesse L., Reading, Pa., assignor to A. C. W. Thompson, Savannah, Ga. Machine for baling cotton	415,288	Nov. 19	1708	442	49	1081
Boyer, John J., assignor to American Writing Machine Company, Hartford, Conn. Type-writing machine	414,187	Nov. 5	12	3	49	741
Boyer, Joseph, and C. M. Geyer, St. Louis, Mo.; said Geyer assignor to said Boyer. Paper-cutter	417,140	Dec. 10	1469	398	49	1698
Boylan, James, Hubbard, Iowa. Vehicle-pole tip	415,830	Nov. 26	2550	666	49	1255
Boyle, Homer L., Grand Rapids, Mich., assignor of three-fourths to H. B. Peck, C. E. West, J. K. and M. J. Jandorf. Horseshoe-calk sharpener	416,394	Dec. 3	366	97	49	1441
Boyle, James E., Brooklyn, N. Y. Lavatory-basin	417,223	Dec. 17	1530	431	49	1702
Boyle, John J. (See Wittechelle, Emile J., assignor.)						
Boyle, Thaddeus W., Augusta, Ga. Cotton and corn scraper and cultivator	418,238	Dec. 31	3192	836	49	3026
Boyme, James, Whippany, N. J., assignor of one-half to N. S. Boynton, Brooklyn, N. Y. Cone-roll for paper-making machines	412,359	Oct. 8	850	226	49	173
Boynton, Eben M., West Newbury, Mass. Elevated-railway system	412,610	Oct. 22	2708	703	49	548
Boynton, Ervin G. (See Brown, Alfred G., assignor.)						
Boynton, Ervin G., and A. G. Brown, La Crosse, Wis. Draft-equalizer	418,369	Dec. 31	3193	836	49	3026
Boynton, Granville L., Marne City, assignor of one-half to N. S. Boynton, Port Huron, Mich. Stove-service apparatus	418,436	Dec. 31	3457	904	49	3079
Boynton, Henry C. S., Hingham, Mass. Hose-washing apparatus	415,935	Nov. 26	2718	711	49	1292
Boynton, Nathan S. (See Boynton, Granville L., assignor.)						
Brabson, Frank, Newark, N. J. Lock for drawers	413,128	Oct. 15	1983	517	49	399
Bradett, Charles L., et al. (See Olmsted, David, assignor.)						
Bradham, Joseph A., E. N. Trump, and J. D. Fenwick, Syracuse, N. Y. Purifying brines, water, &c	413,432	Oct. 22	2444	602	49	496
Bradbury, John M., and A. B. Griswold, Bunker Hill, Kans. Cable-car brake	417,701	Dec. 24	2294	613	49	1750
Bradbury, Joseph Y., and F. J. Stone, Lowell, Mass. Electrode for secondary batteries	415,536	Nov. 26	2730	711	49	1293
Bradford, Benjamin F., Worcester, Mass. Leather-stretching machine	414,283	Nov. 5	133	38, 29	49	768
Bradford, George D. (See Walker and Bradford.)						
Bradford, John B., Middleport, Ohio. Fence	415,238	Nov. 19	1615	416	49	1065
Bradford, Christopher C., Syracuse, N. Y. Reach-coupling for vehicles	412,872	Oct. 15	1603	418	49	326
Bradley, Franklin B. (See Smith, Henry Y., assignor.)						
Bradley & Hubbard Manufacturing Company. (See Jauch, Joseph, assignor.)						
Bradley, John, North Chelmsford, Mass. Yarn-feeding device for knitting-machines	414,487	Nov. 5	470	119	49	836
Bradley, Milton, Springfield, Mass. Drawing-board	416,427	Dec. 3	434	114	49	1458
Bradley, Milton, Springfield, Mass. Kindergarten-table	418,437	Dec. 31	3459	904	49	3080
Bradman, Nellie M. (See Sangster and Ormsby, assignors.)						
Bradner, William F., Greeley, Colo. Hanging-lamp adjuster	415,896	Nov. 26	2643	692	49	1275

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.
			Spec.	Dr. g.	Page.
Bradner, William F., Denver, Colo. Adjustable lamp-hanger.....	415,897	Nov. 26	2643	{ 692 693 } 49	1375
Brady, Charles N., Washington, Pa. Machine for finishing the necks of bottles, &c.....	416,539	Dec. 3	609	168	49 1491
Brady, James. (See Dunn and Brady.)					
Brady, James, Brooklyn, assignor to American Passimetre Company, New York, N. Y., Registering-turnstile.....	417,141	Dec. 10	1470	{ 399 400 } 49	1609
Brady, James, Brooklyn, N. Y., assignor to Fitch Type Writer Company, Des Moines, Iowa, Key-lever for type-writing machines.....	417,626	Dec. 17	2214	589	49 1829
Brady, Thomas, South Chicago, Ill. Device for casting ingots.....	418,932	Oct. 15	1545	{ 494 495 } 49	316
Brady, Thomas H., New Britain, Conn. Holding attachment for arc lamps.....	418,269	Oct. 22	2131	354	49 435
Braidwood, William, Mount Vernon, N. Y. Index-cutter.....	417,536	Dec. 17	3093	{ 556 557 } 49	1795
Brainard, Edwin D. (See Scattergood, Henry V. and C. F., assignors.)					
Brakeley, Joseph, Forks of Buffalo, Va. Spirit-level.....	414,372	Nov. 5	292	71	49 795
Bramble, Carl, New York, N. Y. Key-bottom for pianos.....	414,488	Nov. 5	473	130	49 836
Bramley, Walter, assignor to Taylor & Bramley, Chicopee Falls, Mass. Knit garment.....	413,221	Oct. 22	2132	554	49 435
Branch, Emma L., administratrix. (See Branch, Jesse M.)					
Branch, Jesse M., deceased, Gaylord, Mich., E. L. Branch administratrix. Shifting eccen- tric.....	417,901	Dec. 24	2625	692	49 1523
Brandenburg, Fowler A., Vandalia, Ohio. Fastening device for carriage-curtains.....	416,664	Dec. 3	771	211	49 1383
Brandenburg, Isaac S., Peoria, Ill., and H. H. Wogaman, Johnsville, Ohio. Fertilizing- machine.....	413,124	Oct. 15	1979	516	49 399
Brandes, Henry H., Corydon, Ky. Harness-saddle.....	416,560	Dec. 3	612	167	49 1492
Braudes, Henry H., assignor of one-half to J. F. Sullenger, Corydon, Ky. Whiffletree.....	417,224	Dec. 17	1533	432	49 1702
Brandriff, George C., South Vineland, N. J. Running-gear for plows.....	412,292	Oct. 8	1189	312	49 414
Braudt, Andrew G. (See Flann and Brandt.)					
Brands, Charles M., assignor to himself, H. R. Bacon, H. A. Black, and F. M. Long, Toledo, Ohio. Adjustable shaft-hanger.....	414,489	Nov. 5	474	130	49 836
Braun, Albert G. (See Lyckett and Braun.)					
Braun, David J., assignor to D. J. Braun Manufacturing Company, Chicago, Ill. Com- bined gas and electric-light fixture.....	418,270	Dec. 31	3195	836	49 2036
Braun, John, Camden, N. J. Cooler for beer.....	417,467	Dec. 17	1850	520	49 419
Braun Manufacturing Company, David J. (See Braun, David J., assignor.)	413,165	Oct. 22	2053	533	49 419
Braun, Otto, Berlin, Germany. Speed-gage.....	416,896	Dec. 10	1110	363	49 1597
Bray, Andrew E., New Bedford, Mass. Tug-strap holder for looms.....	413,018	Oct. 15	1824	477	49 369
Bray, John D., Montreal, Quebec, Canada. Fountain-pen.....	418,394	Dec. 31	3392	855	49 2066
Bray, Mellen, Newton, Mass. Making reels and reel-plates for musical instruments.....	416,697	Dec. 10	1112	363	49 1597
Bray, Morris P., Ansonia, assignor to H. W. Lyon, Bridgeport, Conn. Making button-hole strips.....	411,916	Oct. 1	203	52	49 42
Bray, Morris P., Ansonia, Conn., assignor of one-half to A. Fellheimer, New York, N. Y. Corset.....	412,015	Oct. 1	346	90	49 70
Breadner, John T., Philadelphia, Pa. Railway-car.....	418,395	Dec. 31	3394	855	49 2066
Breed, George N., assignor of two-thirds to P. C. Murphy and H. C. Parham, Brookline, S. D. Perforating device for printing-pressed.....	417,062	Dec. 17	2262	609	49 1829
Bretzfeld, Samuel, New York, N. Y. Combined playing-card case and cribbage-board.....	414,420	Nov. 5	475	130	49 837
Brewer, Richard A., assignor to Bridgeport Chain Company, Bridgeport, Conn. Snap-hook.....	414,011	Oct. 29	3306	861	49 679
Brewer, Alanson T., Boston, Mass. Banded.....	417,407	Dec. 24	2499	656	49 1881
Drewer, Horatio J. (See Nathan, Paul, assignor.)	417,808	Dec. 24	2499	657	49 1882
Drewer, William F. (See McVay, Daniel, assignor.)					
Brewington, Henry S., and J. W. Linton, Baltimore, Md. Garbage-cart.....	413,222	Oct. 22	2133	{ 554 555 } 49	435
Brick, Edward, assignor of two-thirds to E. W. Thomas and O. H. Stafford, Lowell, Mass. Picken-staff check for looms.....	416,665	Dec. 3	773	211	49 1523
Brickstein, Laurence C., Philadelphia, Pa., and C. A. I. Bahendreier, Baltimore, Md. Decanting device.....	416,048	Nov. 26	2986	754	49 1396
Bridge, Frank, Soho Square, county of Middlesex, England. Stopper for bottles, &c.....	418,540	Dec. 31	3631	949	49 2115
Bridgeport Chain Company. (See Breal, Richard A., assignor.)					
Bridgeport Steel Cutting Company. (See Lamb, George B., assignor.)					
Briggs, Eliza E., Wilmington, N. C. Grate and fire-place cornice and mantel-protector.....	411,976	Oct. 1	286	74	49 29
Briggs, Charles E., Jamestown, N. Y. Loom-shuttle.....	415,702	Nov. 26	2268	618	49 1240
Briggs, George S., assignor to L. A. Weyburn Company, Rockford, Ill. Mechanism for making shares for listing-plows.....	413,330	Oct. 8	786	{ 204 205 } 49	161
Brigham, Walter L., South Framingham, Mass. Whistle.....	414,178	Nov. 5	14	3	49 741
Bright, Richard A., Providence, assignor to M. Fish, Valley Falls, R. I. Cigar-bunching machine.....	416,005	Dec. 3	775	{ 212 213 } 49	1523
Brill, George M., Philadelphia, Pa. Railway-car brake.....	418,438	Dec. 31	3460	905	49 2080
Brill, John A., Philadelphia, Pa. Dust-shield for car-axle boxes.....	416,439	Dec. 31	3462	905	49 2080
Brill, John A., Philadelphia, Pa. Equalizing device for railway-cars.....	418,440	Dec. 31	3463	906	49 2080
Brill, John A., Philadelphia, Pa. Railway-car.....	418,441	Dec. 31	3465	906	49 2081
Brill, John A., Philadelphia, Pa. Street-car.....	418,494	Dec. 31	3542	926	49 2096
Bris, Leon Q., Paris, France, assignor to Continental Oxygen Company, (limited), West- ster, England. Bleaching.....	415,608	Nov. 19	2224	579	49 1183
Brining, Thomas, Leeds, county of York, assignor of one-half to G. Lister, Headingly, Leeds, England. Machine for lasting boots or shoes.....	412,235	Oct. 8	661	{ 173 174 } 49	137
Brining, Thomas, Leeds, county of York, assignor of one-half to G. Lister, Headingly, Leeds, England. Machine for lasting boots or shoes.....	412,236	Oct. 8	664	{ 175 176 } 49	138
Brink, Frederick, Brooklyn, N. Y. Safety-nozzle for kerosene-cans.....	415,609	Nov. 19	2226	580	49 1183
Brinkerhoff, Jacob, Auburn, N. Y. Plow.....	416,568	Dec. 10	1224	336	49 1621
Brinkerhoff, Warren M., Auburn, N. Y. Picture-nail.....	412,593	Oct. 8	1190	312	49 441
Brinton, Thomas J., et al. (See Knapp and Cressmer, assignors.)					
Bristol Brass and Clock Company. (See Taplin, Alvin, assignor.)					
Broach, James A., et al. (See Stephens, John U., assignor.)					
Broadhead, Eli W. (See Fankner, Alfred, assignor.)					
Broadhead, John W. (See Murphy and Broadhead.)					
Broadhead, Joseph, and J. T. Haines, Linwood, N. J. Transplanter.....	416,808	Dec. 10	1113	303	49 1597
Brook, Arthur W., Shepherd, Mich. Heating-drum.....	412,782	Oct. 15	1400	366	49 289
Brook, Fenelon B., Washington, D. C. Lifting-jack.....	415,705	Nov. 26	2269	618	49 1220
Brook, William E., Plainfield, N. J., assignor, by mesne assignments, to P. T. Gates, New York, N. Y. Vegetable-parer.....	414,856	Nov. 12	1033	266	49 950

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Brock, William R., assignor to Rhenbottom & Taill Manufacturing Company, Weedsport, N. Y. Button-fastening.....	418,443	Dec. 21	3466	967	49	3081
Broden, John T., Sioux City, Iowa. Elevator or clipboard marker.....	413,504	Oct. 8	1192	319	49	241
Brodesser, Peter H., Milwaukee, Wis. Elevator.....	417,225	Dec. 17	1594	439 433	49	1703
Brodskey, Louis. (See Ott, Samuel A., assignor.).....						
Bromley, Thomas, Jr., Philadelphia, Pa. Power-loom, &c.....	418,349	Dec. 31	3329	869	49	2053
Bronner, George C., Berlin, assignor of one-half to L. Hatch, Lamont, Mich. Cloth-pounding.....	417,300	Dec. 10	1570	426	49	1689
Bronson, Amble, Charleston, Mich. Road-grader.....	414,674	Nov. 12	768	198	49	899
Bronson, Levi, assignor of one-half to Pitts Agricultural Works, Buffalo, N. Y. Thrashing-machine.....	418,365	Dec. 31	3351	874	49	2056
Broun, Lewis G. (See Baker and Bronson.).....						
Brook, Joseph L., Simcoe, Ontario, Canada. Spinning-mule.....	414,012	Oct. 29	3307	863	49	680
Brook, William F., assignor to Feltow & Broadfield, Philadelphia, Pa. Machine for folding cloth.....	413,019	Oct. 15	1855	477	49	369
Brooke, William E., assignor to American Saw Company, Trenton, N. J. Saw-tooth.....	417,468	Dec. 17	1861	521	49	1771
Brookfield, William. (See Fense, Jacob, assignor.).....						
Brooks, A. Clinton, et al. (See O'Neill, Lawrence, assignor.).....						
Brooks, Byron A., Brooklyn, N. Y. Preparation of printing-surfaces.....	417,142	Dec. 10	1475	401	49	1669
Brooks, Edwin T. (See Haines, George B., assignor.).....						
Brooks, Frederick W., assignor to Peerless Wringer and Manufacturing Company, Cleveland, Ohio. Laundry-hench.....	413,498	Oct. 22	2327	654	49	511
Brooks, Frederick W., assignor to Peerless Wringer and Manufacturing Company, Cleveland, Ohio. Wringer.....	413,489	Oct. 22	2327	655	49	511
Brooks, Harvey A., and W. D. Baldwin, Groton, N. Y. Combined egg packing crate and tester.....	418,107	Dec. 24	2946	772	49	1968
Brooks, James W., trustee. (See Glidden, Charles W., assignor.).....						
Brooks, James W., trustee. (See Glidden, Elliott, and Fellow, assignors.).....						
Brooks, James W., trustee. (See Packard, Jerome L., assignor.).....						
Brooks, James W., trustee. (See Pillsbury, Daniel D. C., assignor.).....						
Brooks, John, Plainfield, N. J. Clutch.....	413,490	Oct. 22	2328	655	49	512
Brooks, John, Plainfield, N. J. Printing-machine.....	413,491	Oct. 22	2329	656	49	512
Brooks, William D., Baltimore, Md. Can-soldering machine.....	418,495	Dec. 31	3544	927	49	2007
Brooks, William F., Bridgeport, Conn. Corset-clasp.....	413,645	Oct. 29	2763	717	49	568
Brooks, William F., Bridgeport, Conn. Corset-clasp.....	413,646	Oct. 29	2764	718	49	568
Broomell, Albert P., York, Pa. Magazine for steam-boiler furnaces.....	418,159	Dec. 31	3037	797	49	1994
Brown, Heywood C., Brooklyn, N. Y. Eraser.....	415,377	Nov. 19	1837	479	49	1106
Brown, Abraham T. H., Chicago, Ill. Printer's galleys.....	413,161	Oct. 22	2054	534	49	430
Brower, Asher A., Creaton, Iowa. Carpet-stretcher.....	417,627	Dec. 17	2926	589	49	1821
Brown, Alfred G. (See Boynton and Brown.).....						
Brown, Alfred G., La Crosse, Wis., assignor of one-half to E. G. Boynton. Draft-equalizer.....	413,167	Oct. 22	2055	534	49	430
Brown, Alfred S., et al. (See Adams, Samuel J., assignor.).....						
Brown, Allan P., Schuyler, Nehr. Pocket for garments.....	416,438	Dec. 3	425	115	49	1455
Brown, Arthur, et al. (See Adams, Samuel J., assignor.).....						
Brown & Bailey. (See Mayall, Lewis A., assignor.).....						
Brown, Clark, Freeport, Ill. Boiler-cleaning device.....	412,458	Oct. 8	979	257	49	199
Brown, David J., Syracuse, N. Y. Fire-escape.....	417,902	Dec. 24	2936	692	49	1908
Brown, David R., St. Louis, Mo., assignor to W. A. Wood Mowing and Reaping Machine Company, Hoosick Falls, N. Y. Self-binding harvester.....	412,439	Oct. 8	981	258	49	199
Brown, Edward M., Naam, assignor of one-half to Morgan, Kelly & Co., Chicago, Iowa. Drill.....	412,913	Oct. 15	1666	435	49	337
Brown, Edward M., Naam, assignor of one-half to Morgan, Kelly & Co., Chicago, Iowa. Drill.....	412,910	Nov. 19	2226	580	49	1184
Brown, Jacob, et al. (See Adams, Samuel J., assignor.).....						
Brown, James H. (See Watkins and Brown.).....						
Brown, James M., New Market, Iowa. Shears for cutting metal.....	412,362	Oct. 8	854	223	49	173
Brown, Jesse H., and A. E. Spangler, Syracuse, N. Y. Crimping-tool.....	418,330	Dec. 31	3269	802	49	2046
Brown, John H., New York, N. Y. Ordnance.....	412,363	Oct. 8	855	223	49	173
Brown, John O., Concord, Tenn. Derrick.....	414,284	Nov. 5	156	39	49	769
Brown, John W., Rock Falls, Ill. Platform rocking-chair.....	413,373	Dec. 22	2924	575	49	450
Brown, John W., assignor to Golden State and Miners Iron Works, San Francisco, Cal. Suction-dredge.....	418,496	Dec. 31	3546	928	49	2007
Brown, Joseph N., assignor of one-half to F. E. Presley, Farwell, Mich. Belting-machine.....	412,364	Oct. 8	856	223	49	174
Brown, Joseph S., Bremen, Ky. Wagon-brake.....	413,020	Dec. 15	1827	477	49	369
Brown, Lemuel J., Sumner, Tex. Hay-press.....	416,499	Dec. 10	1113	304	49	1597
Brown, Oliver F., assignor of one-half to A. Farra, Lexington, Ky. Lignum.....	415,020	Nov. 12	1276	318	49	998
Brown, Percy H., Yeavous Bay, Salt Springs Island, British Columbia, Canada. Device for felling trees.....	415,442	Nov. 19	1936	504	49	1136
Brown, Perry, assignor to D. R. Doherty and M. Monday, Louisville, Ky. Car-coupling.....	415,229	Nov. 19	1617	417	49	1065
Brown, Robert, Mansfield, Ohio. Wheel-fender for carriages.....	415,021	Nov. 12	1277	334	49	998
Brown, Rufus G., Walbridge, Mass. Steam-heater.....	411,825	Oct. 1	160	41	49	33
Brown, Rush C., assignor of one-half to C. F. Yumans, Oshkosh, Wis. Machine for turning rosettes or the like.....	418,161	Dec. 31	3042	798	49	1995
Brown, William A., Lynn, Mass. Weeder.....	413,374	Oct. 22	2926	576	49	450
Brown, William E., assignor to C. H. Woodcock, Worcester, Mass. Machine for corrugating and cutting wire.....	418,160	Dec. 31	3039	798	49	1994
Brown, William P. (See Guy, Charles E., assignor.).....						
Brown, Alexander P., Boston, Mass., assignor to Weedon Sanitary Manufacturing Company, of Rhode Island. Automatic dish-washing device.....	416,091	Nov. 26	2959	772	49	1340
Browne, Arthur W., Prince's Bay, N. Y., assignor to S. S. White Dental Manufacturing Company, Philadelphia, Pa. Dental issue-drill.....	418,108	Dec. 24	2947	772	49	1968
Browne, James F., et al. (See Shephard, John H., assignor.).....						
Browne, Josiah H. (See Palpeux and Browne.).....						
Brownell, John R. (See Ludlow, Samuel W., assignor.).....						
Brownell, John R., Dayton, Ohio. Flanging-machine.....	411,760	Oct. 1	10	4.5	49	5
Browning, Joseph, Philadelphia, Pa. Machine for spinning metals into irregular shapes.....	417,326	Dec. 17	1596	433	49	1703
Bruceley, Patrick, assignor of one-half to J. Stratton, St. John, New Brunswick, Canada. Journal-box for railway-cars.....	412,723	Oct. 15	1401	366	49	289
Brownson, Ralph, assignor of one-half to W. A. Hardenbergh, St. Paul, Minn. Machine for stuffing horse-collars.....	415,937	Nov. 26	2971	711	49	1233
Broyhill, Calvin G., Normal, Ill. Horse-blanket.....	415,099	Nov. 12	1370	358	49	1017

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & C.	Vol.	Page.
Bruce, William, Wellsboro, N. Y. Folding crate.....	413,492	Oct. 22	2533		49	512
Brucker, Francis, Shelby, Ohio. Clothes-drier.....	416,497	Dec. 31	3247	656	49	2098
Brundage, William D., Battle Creek, assignor of two-thirds to E. C. Lester and H. Gale.						
Albion, Mich. Windmill.....	414,491	Nov. 5	476	181	49	537
Brunka, William A., Boston, Mass. Bouquet-pipe.....	412,833	Oct. 15	1549	405	49	317
Brunner, Mond & Co. (See Mond and Eschellmann, assignors.)						
Brusson, Horace, Chicago, Ill. Holdback for vehicles.....	413,357	Oct. 22	2349	609	49	475
Brush, George E., Danbury, Conn. Machine for fitting sweat-leathers in hats.....	418,498	Dec. 31	3548	928	49	2098
Brushart, Peter. (See Jones, Horace D., assignor.)						
Bryan, Lyman C., Basle, Switzerland. Dental instrument.....	416,989	Dec. 10	1223	336	49	1621
Bryan, Sarah N., Farmer, Ohio. Culinary utensil.....	410,711	Dec. 10	840	289	49	144
Bryan, Thomas A., Baltimore, Md. Gaseous-fuel burner.....	413,704	Nov. 26	2370	618	49	1220
Bryant, Clarence M., et al. (See Botsford, Frederick G., assignor.)						
Bryant, Levi K., Lawrence, Mass. Pucker-stitch for looms.....	415,810	Nov. 26	2399	658	49	1220
Bryant, Jefferson J., Iowa Falls, Iowa. Draft-equalizer.....	416,322	Dec. 3	353	65	49	1419
Bryden, George. (See Wheeler, Henry F., assignor.)						
Bryson, Andrew, Jr. (See Pendleton and Bryson.)						
Bucher, Reinhard, Yonkers, N. Y. Paddle-wheel for vessels.....	412,611	Nov. 19	2227	560	49	1184
Buchheim, Friedrich H., Golszera, near Grimsa, Saxony, Germany. Register for grain or manure drills.....	418,307	Dec. 31	3262	851	49	2039
Buck, Beaumont B., U. S. Army. Shield.....	418,306	Dec. 31	3262	851	49	2039
Buck, George S., Sisseton Agency, S. D. Vial.....	417,962	Dec. 24	2747	723	49	1931
Buck, Herman T., New York, N. Y. Watch-bow.....	413,956	Nov. 26	2731	718	49	1299
Buckingham, Lydia A. (See Johnson and Barber, assignors.)						
Buckmaster, Augustus H., New York, N. Y. Lighter-holder.....	419,271	Dec. 31	3196	837	49	2026
Budd, Townsend C., assignor of one-half to Markle & Imman, Akron, Ohio. Jolie and jolie-mold.....	415,443	Nov. 19	1938	504	49	1126
Buddenhagen, Henry, Toledo, Ohio. Automatic cut-off for engines.....	417,227	Dec. 17	1267	433	49	1703
Bullman, George E., Port Chester, N. Y. Window ventilator.....	415,378	Nov. 19	1238	479	49	1106
Bugbee, George W., assignor to Egan Company, Cincinnati, Ohio. Oscillating saw-frame.....	417,537	Dec. 17	2993	557	49	1706
Bugbee, George W., and F. Danner, assignors to Egan Company, Cincinnati, Ohio. Drawer-fitting machine.....	417,963	Dec. 24	2748	723	49	1932
Bühling, Carl J., Hamburg, Germany. Filter.....	413,021	Oct. 15	1927	478	49	370
Bukies, Eugene, assignor of one-half to J. S. Gardner, Kansas City, Mo. Sewing-machine attachment for overcasting the edges of fabrics.....	412,505	Oct. 8	1193	313	49	241
Bull, Johannes C., Erith, county of Kent, England. Manufacture of alloys of zinc.....	412,016	Oct. 1	347		49	70
Bullard, Charles E. (See Bullard, Ezekiel W. and C. E.)						
Bullard, Ezekiel W., and C. E. Bullard, Worcester, Mass. Box-opening tool.....	416,208	Dec. 3	84	24	49	1385
Bulley, Louis T., New Haven, assignor to Peerless Baton Hole Attachment Company, Tyler City, Conn. Mechanical movement.....	416,354	Dec. 3	304	80	49	1429
Bullock, Henry F., and W. L. Grogan, Jonesborough, Tex. Sash-fastener.....	413,016	Nov. 26	2645	693	49	1276
Bulova, Joseph, New York, N. Y. Making raised gold plates with corrugated back-ground for jewelry.....	412,898	Oct. 1	348		49	70
Bunce, William M., Sheldon, Mo. Car-coupling.....	413,845	Oct. 29	3049	792	49	622
Bunker, William L., Chicago, Ill. Rocking-chair attachment.....	416,209	Dec. 3	85	24	49	1385
Bunnell & Co., J. H. (See Bullard, Ezekiel W. and C. E., assignor.)						
Bunnell, Jesse H., New York, N. Y. Mechanical telegraph-instrument.....	418,443	Dec. 31	3466	907	49	2081
Bunnell, Jesse H., New York, N. Y. Electric lamp.....	418,444	Dec. 31	3467	907	49	2081
Buob, Fred. (See Buob, Louis, Jr., and F.)						
Buob, Louis, Jr., and F., Cincinnati, Ohio. Funnel strainer.....	417,628	Dec. 17	2217	589	49	1821
Burecy, Charles J. T., Syracuse, N. Y. Apparatus for burning wood-debbed.....	414,936	Nov. 12	1151	300	49	974
Burecy, Charles J. T., Syracuse, N. Y. Apparatus for distilling pyroigneous acid.....	414,937	Nov. 12	1153	301	49	974
Burecy, Charles J. T., Syracuse, N. Y. Apparatus for distilling wood.....	414,938	Nov. 12	1156	301	49	974
Burhard, John A., Freeport, Ill. Sash-cord guide.....	413,022	Oct. 15	1928	478	49	370
Burdick, Stephen P., Oakland, Cal. Vehicle.....	417,143	Dec. 10	1479	401	49	1670
Burdall, Ellwood, Jr., assignor of one-half to R. H. Burdall, Port Chester, N. Y. Bolt-heading machine.....	417,538	Dec. 17	2996	557	49	1706
Burdall, Richard H. (See Burdall, Ellwood, Jr., assignor.)						
Burges, Peter J., Florence, Mass. Car-coupling.....	412,068	Oct. 1	417	108	49	84
Burgess, Charles M., assignor to Russell & Erwin Manufacturing Company, New Britain, Conn. Sheet-metal lock-case.....	412,365	Oct. 8	659	234	49	174
Burgess, George W., New Haven, Conn. Car-coupling.....	418,308	Dec. 31	3263	851	49	2039
Burgher, Benjamin W., Russellville, Ky. Hedge fence.....	418,309	Dec. 31	3263	851	49	2039
Burk, Michael. (See Davey, John F., assignor.)						
Burke, William J., Missoula, Mont. Device for driving cattle from railway-tracks.....	418,397	Dec. 31	3266	886	49	2036
Burkhardt, Gustave. (See Matthes and Burkhardt.)						
Burkhart, James M., et al. (See Keopert, Amos E., assignor.)						
Burkhart, John D., Dayton, Wash. Ter. Side-hill plow.....	412,945	Oct. 15	1710	446	49	346
Burkman, Walfrid, assignor to C. H. Frost, Los Angeles, Cal. Clay-reducer.....	412,321	Oct. 8	788	295	49	161
Burleigh, Harry C., Franklin, N. H. Wrench.....	415,379	Nov. 19	1239	479	49	1106
Burleigh, Joseph A., Lake Village, N. H., assignor, by mesne assignments, to himself, and G. D. Burton, Boston, Mass. Circular-knitting machine.....	413,597	Oct. 22	2666	699	49	543
Burlingame, Henry A., Central Falls, R. I., assignor to Sawyer Spindle Company, Boston, Mass. Support for spinning-spindles.....	417,809	Dec. 24	2463	657	49	1882
Burlingame, Simon D., Reading, Mich. Hot-air heating-stove.....	412,306	Oct. 8	1196	314	49	242
Burnam, James. (See Peyton and Burnam.)						
Burns, John G. (See Main and Burns.)						
Burns, Arthur M., assignor to F. Hildreth, Gardiner, Me. Mop-wringer.....	414,189	Nov. 5	185	1	49	742
Burnham, Walter, Hyde Park, Ill. Steam-separator.....	414,373	Nov. 5	283	71	49	782
Burns, Andrew, Westfield, N. Y. Apparatus for shaping and drying basket-handles.....	413,023	Oct. 15	1929	478	49	370
Burns & Co., M. (See Burns, Joseph H., assignor.)						
Burns, David, Muskegon, Mich. Steam-engine.....	416,893	Dec. 10	997	270	49	1774
Burns, Rhoda A., Shrewsbury, Mass. Sad-iron holder.....	417,228	Dec. 17	1589	434	49	1704
Burns, Silver & Company. (See Cook, Charles A., assignor.)						
Burns, Thomas. (See Payer and Burns.)						
Burnup, James M. (See Stevens, Emanuel, assignor.)						
Burpee, Thomas B. C., Philadelphia, Pa. Coffee-roaster.....	415,957	Nov. 26	2752	718	49	1300
Burrell & Company, D. H. (See Hart, Frederick, assignor.)						
Burrell, Joseph, assignor of one-half to E. J. Miller, Newark, N. J. Tent.....	412,161	Oct. 1	547	143	49	110

Alphabetical list of patentees, October to December, inclusive—Continued

Name, residence, and invention.	No.	Date.	Monthly Volume. <i>Spice</i>	<i>Dr &</i>	Vol.	Official Gazette, <i>Page</i>
Burrows, Edward O., assignor to H. L. Burrows, Orange, N. J. Fire-place damper	413,386	Oct. 22	2300	619	49	483
Burrows, Grant H. (See Reid, Thomas J., assignor.)						
Burrows, Hattie L. (See Burrows, Edward O., assignor.)						
Burton, William W., Chicago, Ill. Shoen-carrier	412,337	Oct. 8	667	176	49	139
Burt, Charles A., Rochester, N. Y. Machine for wiping cans	413,168	Oct. 22	2055	534	49	420
Burt, George E., Howard, Mass. Pulley	416,561	Dec. 3	613	107	49	1092
Burt, George H., Philadelphia, Pa. Construction of fire-proof buildings	411,781	Oct. 1	13	5	49	6
Burt, Henry, Hartford, Conn. Cake-griddle	414,825	Nov. 5	157	39	49	70
Burt, Lou, Detroit, Mich. Box for jewelry, silverware, &c	414,751	Nov. 12	874	926	49	910
Burt, Martin C., Lake View, Ill. Apparatus for the manufacture of gas	418,550	Dec. 31	3632	949	49	2115
Burt, Martin C., Lake View, Ill. Apparatus for the manufacture of gas by electricity	418,551	Dec. 31	3633	949	49	2116
Burt, Willard W. (See Radeginner, Veltnas, assignor.)						
Burton, George D. (See Burleigh, Joseph A., assignor.)						
Burton, George D., New Ipswich, N. H. Circuit-closer for signaling apparatus	412,460	Oct. 8	993	252	49	200
Burton, George D., Boston, Mass. Stock-car	414,013	Oct. 29	3309	863	49	680
Burton, George D., Boston, Mass. Stock-car	414,014	Oct. 29	3311	863	49	681
Burton, William, Plymouth, Wis. Compound for killing Canada thistles, &c	417,929	Dec. 17	1599	499	49	1704
Butler, Frank L., Concordia, Kans. Windmill	416,562	Dec. 3	615	107	49	1092
Bush, Charles F., Erie, Pa. Knife	417,530	Dec. 17	1596	496	49	1702
Bushyager, Aaron. (See Bushyager, Elijah and A.)						
Bushyager, Elijah and A., Harrison City, Pa. Bread-raiser	411,253	Oct. 1	120	31	49	98
Butler, Frank L., Concordia, Kans. Windmill	414,974	Nov. 5	285	72	49	785
Butler, Henry G. (See Butler, William and H. G.)						
Butler, Henry G. (See Davy and Butler.)						
Butler, John, Gaza, Iowa. Draft-equalizer	413,129	Oct. 15	1984	517	49	400
Butler, Paul, Lowell, Mass. Gunpowder	418,552	Dec. 31	3634	949	49	2116
Butler, William and H. G., Chicago, Ill. Assignors to Davy Clay Ballast Company, of Illinois. Burning clay for ballast, &c	413,358	Oct. 22	2351	609	49	475
Butler, William P., Chicago, Ill. Attachment for vapor-burners	415,612	Nov. 19	2230	581	49	1184
Butterfield, George W., Lyndon, assignor to C. T. Eaton & Co., Lyndonville, Vt. Water-heater	415,613	Nov. 19	2231	581	49	1185
Butterfield, John C., and T. C. Batchelor, London, England. Damp-proof cart-ledge-case	414,939	Nov. 12	1177	302	49	975
Butterfield, Ebenezer, Brooklyn, N. Y. Egg-case	415,699	Nov. 20	2346	693	49	1716
Butterworth, John, Jr. (See Butterworth, William H. and J. Jr.)	417,469	Dec. 17	1592	521	49	1771
Butterworth, William H. and J. Jr., Trenton, N. J. Tooth for the cylinders of thrashing-machines	415,136	Nov. 12	1436	375	49	1030
Button, Conyers, et al. (See Goodman, Samuel N., assignor.)						
Butts, Charles R., Minneapolis, Minn. Buggy-washing device	416,824	Dec. 10	999	270	49	1574
Buzard, Ralph W. (See La Rosae and Buzard.)						
Buzzell, Edwin H., et al. (See Chace, Albert F., assignor.)						
Byers, Fred W. (See Phillips and Byers.)						
Cayce, Michael, New York, N. Y. Steam boiling apparatus	416,563	Dec. 3	616	108	49	1092
Cabane, James S., Memphis, Tenn. Dental plugger	415,495	Nov. 19	2339	529	49	1147
Cabanis, James S., St. Louis, Mo., assignor to R. H. Spencer, Washington, D. C. Veterinary curb-compress	417,810	Dec. 24	2494	657	49	1882
Cable, William P., Conway, Ill., assignor to Consolidated Manufacturing Company, Washington, D. C. Oil-cup	413,295	Oct. 22	2251	584	49	458
Cable, Hohart M. (See Perry, Charles E., assignor.)						
Cable, John, Cahle, Minn. Excavator	418,272	Dec. 31	3197	837	49	2036
Cabot, Samuel, Boston, Mass. Making carbon dioxide	415,090	Nov. 12	1371	358	49	1017
Cadett, James W. T., Ashted, county of Surrey, England. Machine for coating glass and other surfaces with photographic emulsions	414,015	Oct. 29	3313	864	49	681
Cadwell, Lewis, New York, N. Y. Exercising-chair	414,675	Nov. 12	769	199	49	1403
Cael, Joseph D., Williamsport, Del. Lock for milk-cans	416,040	Nov. 26	2857	754	49	1336
Cahill, William J., Pittsfield, Mass. Ball-cock	415,452	Dec. 31	3643	719	49	1969
Cahoone, Edward R. (See Greene, William A., assignor.)						
Caille, Joseph M., assignor to Union Store Service Company, East Saginaw, Mich. Store-service machine	415,406	Nov. 19	1891	490	49	1115

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Campbell, Henry F., assignor of one-half to J. C. Kessmer, Pittsburg, Pa. Jack for raising cars	416,980	Dec. 10	1227	336	49	1622
Campbell, Hugh, et al. (See Jackson, Oliver P., assignor.)						
Campbell, James, Brooklyn, N. Y. Cover-fastening for jars, &c.	417,540	Dec. 17	3099	358	49	1796
Campbell, James A., New Orleans, La. Barrel-head	417,977	Oct. 1	287	75	49	39
Campbell, James A., and G. P. Harrison, assignors of one-third to P. Michel, Jr., New Orleans, La. Barrel-head	417,930	Dec. 17	1600	434	49	1704
Campbell, James E., et al. (See Cole, Thomas Z., assignor.)						
Campbell, Lewis N., and J. Pyle, Wilmington, Del. Washing-machine	416,395	Dec. 3	366	97	49	1441
Campbell, Peter, Carrolltown, Pa. Car-coupling	419,387	Oct. 8	1198	314	49	242
Campbell, Sanford C., Thornton, Ind. Incubator	414,139	Oct. 29	347	905	49	717
Campbell, Reed. (See Knapp, David H., assignor.)						
Campbell, Thomas H., Allegheny, Pa. Dumb-bell	416,774	Dec. 10	926	350	49	1560
Campbell, William H., Alpena, Mich. Water-heater	416,563	Dec. 3	620	169	49	1493
Canet, Jean B. G. A., Paris, France, assignor of one-half to J. Whitworth & Company, (limited), Manchester, England. Gun-carriage	411,951	Oct. 1	355	66	49	52
Canet, Jean B. G. A., Paris, France, assignor of one-half to J. Whitworth & Company, (limited), Openshaw, England. Apparatus for facilitating the loading of guns	413,130	Oct. 15	1984	517	49	400
Canon, Abram L., Chicago, Ill., assignor of one-half to J. Beuret, Auburn, Ind. Brush-keeper	417,145	Dec. 10	1478	401	49	1670
Canton Glass Company. (See Barker, David, assignor.)						
Canton Steel Roofing Company. (See Snyder and Belding, assignors.)						
Canton Steel Roofing Company. (See Wock, John, assignor.)						
Cantwell, Thomas, Brooklyn, assignor to Nightingale Floor Company, New York, N. Y. Flooring	412,461	Oct. 8	984	258	49	300
Caracristi, Carlo F. Z., Grange, assignor of one-half to J. B. Rockwell, Richmond, Va. Railway tie, chair, and clamp	412,946	Oct. 15	1712	447	49	346
Caraway, John H., Chrisman, Ill. Flood-gate	416,050	Nov. 26	2889	755	49	1337
Card, George F., Covington, Ky., assignor to G. F. Card Manufacturing Company, Cincinnati, Ohio. Governor for electro-dynamic machines	417,984	Dec. 24	2749	724	49	1932
Card, George F., Covington, Ky., assignor to G. F. Card Manufacturing Company, Cincinnati, Ohio. Governor for electro-dynamic machines	411,729	Oct. 1	14	5, 6	49	6
Card Manufacturing Company, George F. (See Card, George F., assignor.)						
Cardozo, William Y., Maids, Mich. Ribbon or notion tray	411,783	Oct. 1	15	6	49	6
Cardwell, Robert, Liverpool, and S. Watson, Manchester, county of Lancaster, England. Coupling for permanent ways	413,171	Oct. 22	2061	536	49	421
Carluff, Ellis R. (See Hall, George F., assignor.)						
Carley, Clarence B., Syracuse, N. Y. Photographic burnisher	412,834	Oct. 15	1550	406	49	317
Carlinet, John G., assignor of one-half to Gordon, Strobel & Lamreaux, (limited), Philadelphia, Pa. Hopper mechanism for blast-furnaces	412,462	Oct. 8	985	258	49	200
Carlisle, Joseph, Chicago, Ill. Washing-machine	414,019	Oct. 29	3317	865	49	682
Carlton, Samuel. (See Strondley, William, assignor.)						
Carman, John S. (See Hoffland, Alexander, assignor.)						
Carminchael, Dwight B. (See Emery, Charles H. and J. P., assignors.)						
Carminchael, John A., Ringlar, Iowa. Ham-tug	412,331	Dec. 31	3301	862	49	2047
Carnahan, Cyrus M., Pittsburg, assignor of one-half to W. M. Orr, Allegheny, Pa. Device for cutting pipes	414,286	Nov. 5	158	40	49	769
Carnegie, Phelps & Company. (See Aiken, Henry, assignor.)						
Carnell, Franklin L., Philadelphia, Pa. Jacquard mechanism for looms	414,287	Nov. 5	159	40	49	769
Carney, Daniel, Meriden, Conn. Suspension device for lamps	417,903	Dec. 24	2627	658	49	1908
Carney, Edward, Terre Haute, Ind. Hair-restorer	416,439	Nov. 12	1159	302	49	975
Carrick, John, New York, N. Y. Liquid digestive compound	412,835	Dec. 3	425	49	1455	
Carrick, John, New York, N. Y. Preparing digestive compounds	412,836	Oct. 15	1551	49	317	
Carrick, John, New York, N. Y. Digestive compound	412,837	Oct. 15	1552	49	317	
Carrick, John, New York, N. Y. Medical compound	412,838	Oct. 15	1554	49	317	
Carrick, John, New York, N. Y. Prepared food for infants and invalids	412,839	Oct. 15	1556	49	317	
Carpelles, Philip, Milwaukee, Wis. Hand-strap for trunks	412,890	Oct. 15	1557	49	317	
Carpenter, A. Pollos, and A. B. Crosby, assignors to C. H. Smith & Co., Springfield, Mass. Roll for paper-making machines	416,566	Dec. 3	621	169	49	1493
Carpenter, Charles E., assignor of four-sixths to F. W. Nevens and J. W. Kelly, Minneapolis, Minn. Electric heating apparatus	412,162	Oct. 1	548	143	49	110
Carpenter, Clarence W., Brownborough, Ky. Spring-motor	415,856	Nov. 26	2584	675	49	1362
Carpenter, Hiram H., Denver, Colo. Secondary battery	412,163	Dec. 31	3044	799	49	1996
Carpenter, Hiram H., Denver, Colo. Machine for the manufacture of secondary-battery plates	412,727	Oct. 15	1406	367	49	290
Carpenter, James W. (See Shawhan, Jacob F., assignor.)						
Carpenter, Jesse F., Berlin, Germany. Automatic cock-valve	414,288	Nov. 5	161	40	49	770
Carpenter, Varnum F. (See McGee, Augustus M., assignor.)						
Carper, Kent H., assignor to Carper Spark Conductor Company, Salem, Va. Spark-conductor	412,463	Oct. 8	986	259	49	200
Carper Spark Conductor Company. (See Carper, Kent H., assignor.)						
Carr, Bruce, et al. (See Mains, John F., assignor.)						
Carr, Charles F. (See Huse and Carr.)						
Carr, Charles F., assignor to W. D. Huse, Lacombe, N. H. Circular-knitting machine	415,831	Nov. 26	2551	666	49	1255
Carr, Contralain P., Baltimore, assignor of one-half to F. P. Marshall, South Evanston, Ill. Quadruplex telegraphy	417,382	Dec. 17	1837	492	49	1747
Carr, Joseph J., et al. (See Side, Edgar, assignor.)						
Carr, Robert S., assignor to F. L. Kahn & Brothers, Hamilton, Ohio. Cooking-stove	414,492	Nov. 5	477	121	49	837
Carr, Rufus R., assignor of one-half to E. Howard Watch and Clock Company, Boston, Mass. Clock striking mechanism	415,938	Nov. 26	2729	712	49	1293
Carranza, Manuel, Guatemala, Guatemala, and J. M. Tinoco, San Francisco, Cal. Electric igniting device for lamps	412,018	Oct. 1	349	90, 91	49	70
Carriek, Samuel P., assignor of one-half to G. H. Clark, Boston, Mass. Shoe-upper	412,464	Oct. 8	988	259	49	201
Carriek, Thomas J., Baltimore, Md., assignor by coe assignments, to S. S. White Dental Manufacturing Company, Philadelphia, Pa. Dental chair	415,873	Oct. 15	1603	418	49	326
Carrier, Enoch, assignor to Jennings Lace Works, Brooklyn, N. Y. Trimming	412,307	Nov. 19	1732	451	49	1087
Carroll, George H. (See Woodard and Carroll.)						
Carroll, Michael, Omaha, Neb., and C. C. Soehren, Chicago, Ill. Radiator-valve	413,749	Oct. 29	2907	756	49	1246
Carroll, William. (See Bennett, Fred M., assignor.)						
Carsey, Robert B., New Bedford, Mass., assignor to Triumph Heat and Light Company, Portland, Me. Burner	417,702	Dec. 24	2325	614	49	1850
Carson, George M., Garmisch, Prussia, Germany. Combined horseshoe nail and culk	417,541	Dec. 17	2100	558	49	1797
Carstena, Asmus, Flensburg, Prussia, Germany. Combined horseshoe nail and culk	412,728	Oct. 15	1408	368	49	290

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Carwell, Edwin H. (See Holder, William H., assignor.)						
Carter & Co., John. (See Smith, Edson J., assignor.)						
Carter, Franklin S., Burlington, N. J. Electrical annunciator	416,712	Dec. 10	841	229	49	1544
Carter, George T. (See Smith, Wendell M., assignor.)						
Carter, J. B. (See Graves, Varnum D., assignor.)						
Carter, John B., and J. W. Pertz, assignors of one-half to M. Seiberling, Kokomo, Ind., and E. S. Levi, New York, N. Y. Machine for grinding wood	413,024	Oct. 15	1830	478	49	370
Carter, John T., assignor of one-half to F. J. Hilbert, Baltimore, Md. Railway-gate	418,109	Dec. 24	2948	773	49	1968
Carter, Louis J., Denison, Iowa. Register for railway passenger service	416,991	Dec. 10	1228	336	49	1622
Carter, Martha A., Amos, Ind. Fruit-canner	411,854	Oct. 1	121	31	49	95
Carter, Rufus R., Basil, Ohio. Fence-weaving machine	412,069	Oct. 1	418	104	49	81
Carter, Walter, and D. MacKenzie, St. Thomas, Ontario, Canada. Ditching-machine	416,210	Dec. 3	86	25	49	1325
Carter, William, assignor of one-half to D. M. Turner, Martinsville, Ohio. Machine for making slat-and-wire fence	413,923	Oct. 22	2135	555	49	436
Carty, John J., Cambridge, Mass. Assignor to Western Electric Company, Chicago, Ill. Circuit for multiple switch-boards	415,765	Nov. 26	2461	643	49	1238
Cary, Nathaniel S. (See Maguire and Cary.)						
Case, Charles W. (See Whalen, Case, and Gardner.)						
Case, Cromwell O., assignor to P. & F. Corbin, New Britain, Conn. Making saab-cord pulleys	414,972	Nov. 12	1213	315	49	985
Case Engine Company, J. T. (See Case, Joel T., assignor.)						
Case, Ervin C., et al. (See Whalen, Case, and Gardner, assignors.)						
Case, Henry J., Auburn, N. Y., assignor of one-half to D. M. Osborne & Company, of New York. Grain-binding machine	417,811	Dec. 24	2405	657	49	1882
Case, Joel T., Bristol, assignor to J. T. Case Engine Company, New Britain, Conn. Steam-engine	412,465	Oct. 8	900	239	49	901
Case, John F., Brooklyn, N. Y. Apparatus for raising dough	412,466	Oct. 8	902	260	49	901
Case, John M., assignor to Case Manufacturing Company, Columbus, Ohio. Gradual-reduction machine	417,639	Dec. 17	2221	529	49	1921
Case, John M., assignor to Case Manufacturing Company, Columbus, Ohio. Rotary holt.	417,630	Dec. 17	2220	590	49	1921
Case, John M., assignor to Case Manufacturing Company, Columbus, Ohio. Malt-brushing machine	417,631	Dec. 17	2224	591	49	1922
Case Manufacturing Company. (See Case, John M., assignor.)						
Case, Rollin S., Cleveland, Ohio. Fence-post	413,925	Oct. 15	1831	479	49	370
Casely, John, Knightstown, Ind. Metallic railway-rail tie	416,390	Dec. 3	368	98	49	1442
Cash, Arthur W., assignor to F. Armstrong, Bridgeport, Conn. Garment-clasp	414,857	Nov. 12	1634	367	49	950
Cash, Arthur W., assignor to F. Armstrong, Bridgeport, Conn. Garment-supporter	414,858	Nov. 12	1634	367	49	951
Cash, Arthur W., assignor to F. Armstrong, Bridgeport, Conn. Shoe-stretcher	416,775	Dec. 10	927	250	49	1560
Cassady, William S., Millville, N. J. Harness-bug	415,381	Nov. 19	1842	480	49	1107
Cassell Gold Extracting Company. (See MacArthur and Forrest, assignors.)						
Cassella & Co., Leopold. (See Rosenek, Joseph, assignor.)						
Cassella & Co., Leopold. (See Weinberg, Arthur, assignor.)						
Cassidy, Michael, Calumet, Wis. Vehicle-shaft	416,133	Dec. 3	7	2	49	1370
Casselman, Morris N., assignor to G. E. King and H. H. Palmer, Rockford, Ill. Churn	417,310	Dec. 17	1717	462	49	1736
Casselman, Morris N., assignor to H. H. Palmer and G. E. King, Rockford, Ill. Churn-closure	417,663	Dec. 17	2263	606	49	1920
Casto, Frank, assignor of one-half to S. D. Cochran, Cincinnati, Ohio. Letter-press	418,398	Dec. 31	3397	886	49	2067
Caswell, John W. (See Roca, George W., assignor.)						
Cartlin, Fred, Brooklyn, N. Y. Pocket chess-board	413,026	Oct. 15	1832	479	49	370
Cavallaro, Francesco, assignor of one-half to F. Stock and A. S. MacKenzie, San José, Cal. Pump	415,497	Nov. 19	2042	530	49	1147
Cave, Amos. (See Cave, John, P., A., F., and A.)						
Cave, Arthur. (See Cave, John, P., A., F., and A.)						
Cave, Frederick. (See Cave, John, P., A., F., and A.)						
Cave, John, P., A., F., and A., Rushden, county of Northampton, England. Lasting-machine	412,467	Oct. 8	994	361	49	992
Cave, Paul. (See Cave, John, P., A., F., and A.)						
Chace, Albert F., assignor, by mesne assignments, of one-half to L. E. S. Perkins and E. H. Buzzell, Boston, Mass. Water-motor	416,667	Dec. 3	777	213	49	1524
Chadbourne, Zebulon L., assignor to H. Napay, Brooklyn, N. Y. Pipe-expander	416,390	Nov. 19	2043	530	49	1148
Chaddack, David H., Chicago, Ill. Rod-packing	412,574	Oct. 15	1660	418	49	326
Chak, Timothy G., Pawtucket, R. I., assignor of one-half to H. McConnell, Brick Church, N. J. Nursing-bottle	416,355	Dec. 3	366	80	49	1429
Challoner, Frank, Omro, Wis. Split-dropping mechanism for chingle-sawing machines	415,857	Nov. 26	2567	676	49	1902
Chamberlain, Charles C., Muskegon, Mich. Cuspidor	418,553	Dec. 31	3635	950	49	2116
Chamberlain, Edmund D., Westfield, N. J. Hand-stamp	413,027	Oct. 15	1833	479	49	371
Chamberlain, Jeremiah C., Chelsea, Mass. Assignor to Sawyer Crystal Blue Company, Seco, Me. Bottle for liquid bluing	412,368	Oct. 8	800	294	49	174
Chamberlain, John N., Springfield, Mass. Pressure-regulator and yoke for gas-chandeliers	414,493	Nov. 5	479	122	49	837
Chamberlain, George W. (See Turley and Chamberlain.)						
Chambers, Adelbert, assignor of one-fourth to J. A. Manning and W. M. Peckham, Troy, N. Y. Apparatus for treating vegetable substances	417,470	Dec. 17	1954	521	49	1771
Chambers, Crompton, et al. (See Ponton, Archibald C., assignor.)						
Chambers, Henry J., assignor to W. H. Duffett, Beatrice, Neb. Road-grader	413,846	Oct. 29	3042	793	49	622
Chamness, James A., Hagerstown, assignor of one-half to J. Mitchell and J. M. Allred, Cullman County, Ala. Combined cotton scraper and cultivator	414,630	Nov. 5	691	180	49	877
Chandler, Amasa F., Allegheny, Pa. Apparatus for polishing plate-glass	412,367	Oct. 8	851	234	49	175
Chandler, Frank P., Nashua, N. H. Ice-cream freezer	416,567	Dec. 3	851	109	49	1403
Chandler & Price. (See Price, W. H., Jr., assignor.)						
Chandler, Rufus, Bridgeport, Conn., assignor of one-half to T. E. Sloan, New York, N. Y. Sewing-machine	417,146	Dec. 10	1480	402	49	1671
Channell, Emmet W., assignor of two-thirds to J. P. Hodge, Waco, Tex. Fence-machine	414,140	Oct. 29	3488	906	49	717
Chapin, Festus, and W. J. Edwards, Portage La Prairie, Manitoba, Canada. Bob-sled	418,164	Dec. 31	3045	799	49	1996
Chapin, Henry A., New York, N. Y. Igniting and extinguishing apparatus	414,941	Nov. 12	1161	303	49	975
Chapin, A. L., et al. (See McKean, George, assignor.)						
Chapman, Amos, Saybrook, Ill. Shoe	417,542	Dec. 17	2102	550	49	1797
Chapman, Byron. (See Galbreath, Drunk, and Chapman.)						
Chapman, Frederic G., and F. M. Dearing, assignors of one-third to W. G. Chapman, London, England. Arc lamp	414,141	Oct. 29	3492	907	49	718

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Des.	Vol.	Page.
Chapman, George T., White Plains, N. Y. Bandage for veterinary use, &c.	414,732	Nov. 12	875	227	49	920
Chapman, Leonard, assignor to Continental Oxygen Company, (limited,) Westminster, Eng-land. Apparatus for obtaining oxygen from air	417,985	Dec. 24	2750	725	49	1932
Chapman, William C. (See Chapman and Leaning, assignors.)						
Chappette, Edward C., assignor to Keystone Watch Case Company, Philadelphia, Pa. Bow for watch cases	414,733	Nov. 12	931	241	49	931
Clappell, Allen C. (See Rosseter, Thomas R., assignor.)						
Clappell, Florence J. D., assignor of forty-nine one-hundredths to W. H. Riddle, Baltimore, Md. Flag-staff holder	413,131	Oct. 15	1939	518	49	401
Charles, Thomas. (See Nutting, Samuel E., assignor.)						
Charter, John, Sterling, Ill. Hydrocarbon or gas engine	415,446	Nov. 19	1944	505	49	1138
Chase, Edward O., Newark, N. J., assignor to Farmer, Little & Co., New York, N. Y. Machine for shaving printers' heads	416,568	Dec. 3	622	170	49	1494
Chase, Frank, Boston, Mass. Pegging-machine	415,001	Nov. 12	1573	329	49	1018
Chase, George S., Cambridge, Mass. Metal door-mat	414,735	Nov. 5	828	73	49	796
Chase, Jerome H., Buffalo, N. Y. Hot-air engine	417,857	Dec. 24	2563	675	49	1895
Chase, Oscar, assignor of one-half to N. D. Holt, Rutland, Ohio. Mowing-machine	412,596	Oct. 8	1199	314 315	49	242
Chassagne, Paul J., assignor of one-half to S. S. Miller and W. R. Palmer, Akron, Ohio. Incandescent-lamp socket	416,651	Nov. 26	3980	755	49	1327
Chatain, Evariste, and S. Gilletti, San Francisco, Cal. Concrete-mixing machine	413,820	Oct. 29	3008	793	49	615
Chatfield, Elton S. (See Wilcox and Chatfield.)						
Chatfield, William H., Jr. (See Porter, Edward E., assignor.)						
Chedron, Charles, et al. (See Filatratul, Wilid, assignor.)						
Check, Joseph, Beardstown, Ill. Steam-engine	416,900	Dec. 10	1115	304	49	1598
Chesman, Timothy M. (See Dunn and Brady, assignors.)						
Chelini, James, Washington, D. C. Window-securing	417,403	Dec. 17	1862	499	49	1732
Cheney, Thomas J. (See Coe, Charles E., assignor.)						
Cherof, Joseph L., assignor of one-half to L. G. McNair, St. Louis, Mo. Shutter-fastener	416,992	Dec. 10	1230	337	49	1692
Cherrington, Le Roy J., Lowell, Mass. Self-closing in-stand	418,165	Dec. 31	3047	800	49	1906
Cheyne, John, Paterson, N. J. Machine for finishing and completing twine or cord	413,070	Oct. 1	419	169	49	85
Chicago Drop Forge and Foundry Company. (See Gilbert, Harry L., assignor.)						
Chicago Matrix Machine Company. (See Redfield, Casper L., assignor.)						
Chichester, Lewis S., assignor to C. P. Bassett, Newark, N. J. Water-aerator	417,664	Dec. 17	2264	600 601 614	49	1829
Chichester, Lewis S., assignor to C. P. Bassett, Newark, N. J. Water-renovator	417,703	Dec. 24	2526	615	49	1850
Childs & Co., J. M. (See Smith, De Wane B., assignor.)						
Childs, James. (See Jones, Charles, assignor.)						
Chipman, J. Logan, et al. (See Church, Frank S., assignor.)						
Chippendale, Cornelius, Auburn, Me. Loom-pickor	417,665	Dec. 17	2267	601	49	1830
Chisholm, Boyd & White. (See White and Boyd, assignors.)						
Chisholm, John W., Liverpool, Nova Scotia, Canada. Pipe-stopper	411,978	Oct. 1	299	75	49	59
Chisholm, Wilson B. (See Younger, Alexander, assignor.)						
Chisnm, Pitser M., et al. (See Mayo, William A., assignor.)						
Choat, Otis W., assignor of one-half to H. M. Wachorn and W. E. Drew, Willow Springs, Mo. Tire-tightener	413,296	Oct. 22	2223	584	49	459
Chorlton, Isaac, and G. L. Scott, Manchester, county of Lancaster, England. Means for connecting the ends of mattress-frames	418,445	Dec. 31	3469	907	49	2082
Chorlton, Isaac, and G. L. Scott, Manchester, county of Lancaster, England. Metallic or spring mattress	418,446	Dec. 31	3471	908	49	2082
Chose, Christian O. (See Wittmann, Hermann, assignor.)						
Chrisman, Joseph C., Cliff Top, assignor of one-half to J. A. McGuffin, Sewell Depot, W. Va. Car-coupling	415,705	Nov. 26	2373	619	49	1921
Christ, Gustav A., Grand Rapids, Mich. Fence-post	417,383	Dec. 17	1838	493	49	1747
Christen, Frank, St. Louis, Mo. Blacksmith's bellows	417,632	Dec. 17	2225	592	49	1822
Christie, Alexander, assignor of one-half to H. Rivers, Milwaukee, Wis. Punch-holder	418,604	Dec. 31	3717	971	49	2132
Christy, James, Jr. (See Christy, Will, assignor.)						
Christy, Russ J., Sandusky, Ohio. Knife	414,973	Nov. 12	1313	315	49	985
Christy, Will, assignor of one-half to J. Christy, Jr., Akron, Ohio. Switch for electric-motor trolleys	414,259	Nov. 5	162	40	49	770
Chronik, August and L., New York, N. Y. Shutter for photographic cameras	416,440	Dec. 3	426	115 116	49	1455
Chronik, Louis. (See Chronik, August and L.)						
Church, Frank S., assignor of one-half to J. L. Chipman, Detroit, Mich., and E. H. Plummer, Cash-carrier	417,147	Dec. 10	1484	403 404	49	1671
Church, Martha E. (See Church, William A., assignor.)						
Church, William, Northampton, county of Northampton, England. Ventilated boot or shoe	417,558	Dec. 24	2568	676	49	1895
Church, William A., assignor to M. E. Church, Waterbury, Conn. Stove-grate	415,665	Nov. 19	2302	599 600	49	1199
Churchill, Aaron F. (See Boyer, Jesse I., assignor.)						
Churchill, Enos, Tulare, assignor of one-half to W. L. Morrow, San Luis Obispo, Cal. Washing-machine	413,821	Oct. 29	3009	753	49	615
Clapp, D. E., et al. (See Clapp and Low, assignors.)	416,993	Dec. 10	1521	337	49	1622
Clapp, Dwight C., Owosso, Mich. Drawer-guide	413,224	Oct. 22	2136	555	49	436
Clapp, Dwight C., assignor of two-thirds to D. M. Eatey and Eatey Manufacturing Company, Owosso, Mich. Drawer-guide for bureaus, &c.	416,030	Nov. 26	2858	747	49	1321
Clapp, Dwight C., assignor of one-half to D. M. Eatey, Owosso, Mich. Bureau-drawer	413,028	Oct. 15	1835	479	49	371
Clapp, George W., and B. F. Low, assignors of part to W. F. Neal, B. C. Dick, W. M. and D. E. Clapp, Gibsonville, N. C. Churn	418,447	Dec. 31	3712	908	49	2082
Clapp, Lewis B., Fitchburg, Mass. Friction-clutch	415,357	Nov. 19	1814	472	49	1101
Clapp, Raleigh. (See Johnston, Lysander, assignor.)	415,997	Nov. 26	2892	735	49	1310
Clapp, W. M., et al. (See Clapp and Low, assignors.)						
Clapp, Aaron W., St. Louis, Mo. Photographic vignetter	413,611	Oct. 22	2710	704	49	548
Clark, Alexander J., Olean, N. Y. Casing for Artesian wells	411,886	Oct. 1	161	42	49	33
Clark, Benjamin P., Boston, Mass. Twine	416,052	Nov. 26	2891	755	49	1327
Clark, Charles C., Jr., St. Louis, Mo. Typewriter machine	414,494	Nov. 5	441	122	49	838
Clark, Charles H., Rochester, N. Y. Injector oil-burner	417,986	Dec. 24	2753	736	49	1933
Clark, Charles J., et al. (See Phillips, Frank A., assignor.)						
Clark, Chester W., Mishawaka, Ind. Cultivator	414,290	Nov. 5	162	41	49	770
Clark, Dwight S., Cambridge, assignor to E. L. Forbes, Boston, Mass. Angular paper box	413,029	Oct. 15	1836	480	49	371

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & Vol.	Page	
Clark, Eddy L., Brooklyn, N. Y., assignor to Clark-Howard Excavator and Conveyor Company, of New Jersey. Tower for the elevation and storage of coal.	413,031	Oct. 15	1840	481	49	372
Clark, Eddy L., and L. D. Howard, Brooklyn, N. Y., assignor to Clark-Howard Excavator and Conveyor Company, of New Jersey. Shifting deck for dumping-across.	413,030	Oct. 15	1837	480	49	371
Clark, Gates A., assignor to Clark's Coking and Smokeless Furnace Company, Rochester, N. Y. Coking-furnace.	415,022	Nov. 12	1277	334	49	999
Clark, Gates A., assignor to Clark's Coking and Smokeless Furnace Company, Rochester, N. Y. Furnace.	415,666	Nov. 19	2304	600	49	1199
Clark, George D., Plainville, Conn. Clock or watch key.	414,677	Nov. 12	771	199	49	900
Clark, George H., Boston, Mass. Jack for holding boots or shoes while being operated upon.	417,148	Dec. 10	1446	405	49	1672
Clark, George S., Philadelphia, Pa. Safety-valve.	417,908	Dec. 24	2698	693	49	1903
Clark, Henry A. (See Tregurtha, Alfred T., assignor.)	414,753	Nov. 12	876	227	49	930
Clark, Horace L., Rutherford, N. J. Lamp.	414,753	Nov. 12	876	227	49	930
Clark-Howard Excavator and Conveyor Company. (See Clark, Eddy L., assignor.)						
Clark-Howard Excavator and Conveyor Company. (See Clark and Howard, assignors.)						
Clark-Howard Excavator and Conveyor Company. (See Howard, Lyman D., assignor.)						
Clark, Hyde H., et al. (See Olmsted, David, assignor.)						
Clark, James M., Malden, Mass. Rock-drill.	418,554	Dec. 31	3636	850	49	2116
Clark, James P., Dallas, Tex. Water-cooler.	416,356	Dec. 3	307	80	49	1439
Clark, John T., Columbia, S. C. Regulation-indicator for time-pieces.	417,067	Dec. 24	2755	798	49	1933
Clark, John W., Hamilton, Ohio. Wagon-jack.	414,678	Nov. 12	772	200	49	901
Clark, Phineas V., New York, N. Y. Wagon-body.	415,958	Nov. 26	3753	719	49	1300
Clark, Roswell M. (See Parker and Clark.)						
Clark, Samuel, Rochester, N. H. Lifting-jack and support.	412,947	Oct. 15	1713	448	49	345
Clark, Thomas C., Canandaigua, Ohio. Flag-staff-holder.	416,901	Dec. 10	1116	364	49	1398
Clark, Walter H., Cleveland, Ohio. Door-check.	417,149	Dec. 10	1447	405	49	1673
Clark, William K., Sidell, Ill. Washing-machine.	416,569	Dec. 3	626	170	49	1494
Clarke, George, Jersey City, N. J. Propeller-dam.	412,997	Oct. 8	1352	351	49	373
Clarke, James A., Port Moody, British Columbia, Canada. Engine.	418,399	Dec. 31	3308	887	49	2067
Clarke, John H., Glenmary, Tenn. Railway-track.	415,092	Nov. 12	1374	359	49	1018
Clarke, Joseph H., et al. (See Seales, William S., assignor.)						
Clarke, Joseph I. C., assignor of two-thirds to F. Wesel and D. M. Oviatt, New York, N. Y. Interchangeable plate for stereospe-ri-forms.	415,615	Nov. 19	2254	582	49	1185
Clarke, Louis S., Pittsburg, Pa. Photograph recorder and reproducer.	415,490	Nov. 19	2044	530	49	1148
Clarke, Robert, Kansas City, Mo. Fare-register.	416,211	Dec. 3	88	25, 26	49	1385
Clarke, William E., Cleveland, Ohio. Steam-engine.	415,137	Nov. 12	1438	375	49	1081
Clark's Coking and Smokeless Furnace Company. (See Clark, Gates A., assignor.)						
Clark's Coking and Smokeless Furnace Company. (See Mitchell, John, assignor.)						
Clark's Coking and Smokeless Furnace Company. (See Sherwood, Frank G., assignor.)						
Claus, Adolph, assignor of one-half to J. S. Ludlam, Lowell, Mass. Bobbin.	412,163	Oct. 1	551	144	49	111
Clausen, Edward E., assignor of one-half to W. A. Lorenz, Hartford, Conn. Paper bag.	414,679	Nov. 12	773	200	49	901
Clausen, Edward E., Hartford, Conn., assignor to Union Paper Bag Machine Company, Philadelphia, Pa. Making paper bags.	417,905	Dec. 24	2630	694	49	1909
Clausen, Edward E., Hartford, Conn., assignor to Union Paper Bag Machine Company, Philadelphia, Pa. Making paper bags.	417,906	Dec. 24	2671	694	49	1909
Clawson, Clement G., Newark, N. J. Kaleidoscope.	416,992	Nov. 26	3900	712	49	1341
Clawson, Hiram, Clawson, Ohio. Vehicle-fender.	413,493	Oct. 22	2523	656	49	513
Clay, Anson E., Newburg, Iowa. Grain-meter.	417,513	Dec. 17	1910	559	49	1797
Clay, John, Sedalia, Mo. Flow.	414,736	Nov. 5	967	73	49	795
Clay, William W., Chicago, Ill. Gas-starter.	414,969	Oct. 1	927	66	49	52
Claypool, Charles, Spencer, Iowa. Windmill.	415,811	Nov. 26	2520	658	49	1350
Clayton, Harry W., Odin, Ill. Paint composition.	417,666	Dec. 17	2398	687	49	1830
Clayton, Louis N., Trenton, N. J. Blacking-box holder.	414,291	Nov. 5	164	41	49	770
Cleveland, Caleb T., Kingston, N. Y. Fishing-reel.	416,904	Dec. 10	1212	338	49	1622
Cleveland, John B., Indianapolis, Ind. Fence. (Reissue.)	11,045	Dec. 3	826	225	49	1524
Cleck, James D., Abingdon, Va. Vehicle-spring.	416,053	Nov. 26	2844	756	49	1327
Clegg, David, Philadelphia, Pa. Smoke-consuming furnace.	415,939	Nov. 26	2755	719	49	1300
Clement, George H. H., Kingston-upon-Hull, county of York, England. Combined pen and pen-holder.	417,704	Dec. 24	2399	615	49	1851
Clemson, David G., Peoria, Ill. Barrel.	414,020	Oct. 22	3318	865	49	682
Clemson, George N., Middletown, N. Y. Saw.	417,404	Dec. 17	1873	499	49	1752
Clenkins, George M., Cincinnati, Ohio. Saw-gage.	415,023	Nov. 12	1279	334	49	999
Cleveland School Furniture Company. (See Smith, John, assignor.)						
Clevett, Arthur E., Kewanee, Ill. Slat-lock and bed-stay.	414,282	Nov. 5	165	41	49	770
Clifford, Charles C., Springfield, Mass. Implement for loading and reloading shells.	413,435	Oct. 22	2449	636	49	496
Clifford, George V., New York, N. Y. Temporary binder.	414,794	Nov. 12	934	241	49	931
Clifford, Isidore E., London, county of Middlesex, England. Apparatus for receiving coins and receiving therefor.	414,795	Nov. 12	936	242	49	932
Cline, Leon, Chicago, Ill. Dust-pan.	411,855	Oct. 1	122	31	49	26
Cline, William, Clayton, Ind. Fence.	415,616	Nov. 19	2255	582	49	1185
Clinton, Charles M., Idaho, N. Y. Fish-trap.	413,774	Oct. 29	3946	768	49	603
Close, Thomas J., Philadelphia, Pa., assignor to Gas Improvement Company, of New America. Apparatus for the manufacture of gas.	416,825	Dec. 10	999	270	49	1574
Clood, John W., Buffalo, N. Y. Watch.	414,190	Nov. 5	16	4	49	742
Clood, Joseph S., and S. A. Desmond, Spartanburg, S. C., assignors to themselves, and J. G. White, Norfolk, Va. Fire-place and heater.	412,468	Oct. 8	908	261	49	203
Cloodman, Francis A., Cumberland Mills, Me., assignor to S. D. Warren & Co., Boston, Mass. Apparatus for recovering soda.	418,273	Dec. 31	3301	838	49	2027
Cloodman, Francis A., Cumberland Mills, Me., assignor to S. D. Warren & Co., Boston, Mass. Recovering soda.	418,274	Dec. 31	3302	838	49	2028
Clogg, Thomas A. (See Bigger, Thomas J., assignor.)						
Clow, George S., Columbus, Ohio. Scythe-fastener.	415,265	Nov. 19	1654	427	49	1072
Clubine, Andrew F. (See Rist and Clubine.)						
Cluett, Robert, Troy, N. Y. Making open-front bosom shirts.	415,447	Nov. 19	1948	566	49	1129
Cluff, Harry, Grand Rapids, Mich. Apparatus for vaporizing and burning petroleum.	411,784	Oct. 1	17	6	49	7
Clymer, George N., Bloomingburg, Ind. Suspension-bridge.	413,172	Oct. 22	2062	536	49	421
Clymer, George N., Bloomingburg, Ind. Bridge.	416,654	Nov. 26	2805	736	49	1328
Clymer, Theophilus, Festiniog, county of Merioneth, Wales, England. Electric safety-lamp for miners.	413,708	Oct. 29	3854	745	49	585
Coates, George H., Worcester, Mass. Finger-nail cutter.	413,295	Oct. 22	2136	555	49	436
Cobb, Dewey A. (See Wells and Cobb.)						
Cobban, George A. (See Walradt and Cobban.)						
Coble, Anthony, and J. H. Mounts, Montgomery City, Mo. Car-coupling.	413,173	Oct. 22	2064	537	49	422

Alphabetical list of patentees, October to December, inclusive.—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & Page.	Vol.	Page.
Cohle, William Jr., Philadelphia, Pa. Car-seat lock	414,293	Nov. 5	166	41	49	770
Cohleigh, Charles J., West Loomis, Mass. Combined erade and crib	417,812	Dec. 24	2498	658	49	1-83
Cochran, Carlos B., West Chester, Pa. Testing-mill	418,442	Dec. 31	3473	49	20-2	
Cochran, Carlos B., West Chester, Pa. Milk-tester	418,469	Dec. 31	3550	928	49	20-8
Cochran, Frederic B., New York, N. Y. assignor to American Automatic Vending Machine Manufacturing Company, of New York. Coin-operated vending-machine	412,469	Oct. 8	998	261 { 262	49	808
Cochran, Samuel D. (See Casto, Frank, assignor.)						
Cochran, Thomas, St. Clairsville, Ohio. Head-gear for cattle	416,441	Dec. 3	431	116	49	1456
Cochrane, James L., et al. (See Loomis, Franklin D., assignor.)						
Coddington, Stephen B., and A. D. McGee, Capac, Mich. Sleigh-gear	415,500	Nov. 19	2046	531	49	1142
Cody, John, New York N. Y. Rock-drill	418,440	Dec. 31	3473	909	49	20-2
Cody, Lorenzo J., Sault Ste. Marie, Mich. Suspended car and motor for electric railways	415,617	Nov. 19	2225	522	49	1186
Coe, Charles E., assignor of one-half to T. J. Cheney, St. Louis, Mo. Tool-grinding machine	418,309	Dec. 31	3364	832	49	8040
Coe, Henry L., New York, N. Y., and J. J. McBride, Hedgesfield Park, N. J.; said McBride assignor to said Coe. Hatchway door for elevators	415,618	Nov. 19	2237	563	49	1186
Coe, Henry L., J. L. Smedley, and W. A. Cromwell, New York, N. Y., assignors to Safety Hatch Door Company, of Illinois. Elevator door	413,297	Oct. 22	2254	594	49	459
Coe, Martin N., Ashland, Wis. Watch-case pillars	415,600	Nov. 26	2756	730	49	1300
Coffey, Barton H., Philadelphia, Pa. Filter	417,384	Dec. 17	1839	493	49	1748
Coffey, Barton H., New York, N. Y. Filter	417,405	Dec. 17	1863	494	49	1752
Coffin, Charles C., Boston, Mass. Apparatus for obtaining sheets of metal by electro-deposition	417,405	Dec. 17	1863	499	49	1752
Coffin, Charles C., Boston, Mass. Apparatus for obtaining sheets of metal by electro-deposition	418,024	Nov. 12	1280	334	49	999
Coghlan, James J., et al., trustees. (See O'Jilian, Henry P., assignor.)	413,509	Oct. 8	1301	315	49	242
Cogswell, F. R., et al. (See Allen, Hassan U., assignor.)						
Cogswell, Mortimer C., Brooklyn, N. Y. Grinding-mill	413,019	Oct. 1	351	91	49	71
Cohemo, Henry, New York, N. Y. Perambulator	413,709	Oct. 29	2255	745	49	585
Cohn, Joseph, New York, N. Y. Necktie-box	412,470	Oct. 8	1008	263	49	805
Cohn, Louis M., and L. H. Watson, assignors to said Watson and G. H. Oliver, Chicago, Ill. Self-adjusting bottle-stopper	415,939	Nov. 26	2732	712	49	1293
Cohn, Moses. (See De Rose, Jules, assignor.)						
Cole, Daniel S., Litchfield, Minn. Nailless bridge or sidewalk	416,570	Dec. 3	628	170	49	1494
Cole, Fannie T., et al. (See Cole, Jonah R., assignor.)						
Cole, Jonah R., assignor to L. Lefferts and F. T. Cole, New York, N. Y. Vehicle-axle	414,021	Oct. 29	3319	866	49	682
Cole, Pliny F., Warren, Pa. Lathe attachment for turning wrist-pins	414,897	Nov. 12	1099	262 2-3	49	962
Cole, Spencer H., Atlanta, Ga. Stylus	417,931	Dec. 17	1601	434	49	1704
Cole, Thomas Z., New Orleans, La., assignor, by mesne assignments, to J. E. Campbell and D. McConville. Dredging-machine	415,619	Nov. 19	2238	531 532 563 564 565 566	49	1148
Cole, Thomas Z., New Orleans, La., assignor, by mesne assignments, to J. E. Campbell and D. McConville. Dredging-machine	415,619	Nov. 19	2238	566	49	1186
Cole, Thomas Z., New Orleans, La., assignor, by mesne assignments, to J. E. Campbell and D. McConville. Dredging-machine	415,680	Nov. 19	2246	586	49	1188
Coleman, George D., assignor of one-half to H. Le Patourel, Chicago, Ill. Ship's rigging	414,631	Nov. 5	692	180	49	577
Coleman, John P., Barfield, Ark. Saw-jointer	416,397	Dec. 3	369	98	49	1442
Coleman, Loomis H., Racine, Wis. Weather-strip	416,357	Dec. 3	369	81	49	1429
Coler, Elijah J., Liberty, Ohio. Metallic lining for pumps	414,062	Oct. 29	3330	866	49	6-3
Coles, David H., Brooklyn, N. Y. Sewing-machine	416,571	Dec. 3	629	171	49	1495
Coles, David H., Brooklyn, N. Y. Eyelet-setting machine	417,988	Dec. 24	2757	726 727 728	49	1934
Collen, Alexander B., New York, N. Y. Carpet-heating machine	413,387	Oct. 22	2391	619	49	4-3
Colley, Abraham, South Richmond, Victoria. Cartridge-magazine attachment for rifles	413,032	Oct. 15	1841	491 492	49	372
Collin, James C., Syracuse, N. Y. Toy	418,166	Dec. 31	3648	800	49	1996
Collings, Clarence H. (See Orth, John C., assignor.)						
Collings, George, and E. H. Weatherhead, Cleveland, Ohio. Apparatus for burning petroleum	412,875	Oct. 15	1675	419	49	326
Collins, Albert L. (See Sutton and Collins.)						
Collins, Cornelius, assignor of one-half to G. W. McBurney, Albia, Iowa. Garden plow, cultivator, &c	412,840	Oct. 15	1558	406	49	318
Collins Goodin Manufacturing Company. (See Collins, Olmstead, assignor.)	418,110	Dec. 24	2760	773	49	1969
Collins, John R., and J. Wad El-Ward, Toronto, Ontario, Canada. Fuse and taper lighter. Collins, Olmstead, assignor to Collins Goodin Manufacturing Company, St. Louis, Mo. Wire-cutter	415,691	Nov. 19	2248	567	49	1188
Collins, Orvin E. (See Reisinger, Jacob, assignor.)						
Collins, Paul E., Boston, and E. H. Taylor, Lynn, assignors to said Collins, E. de la Granja, and P. Spinney, Boston, Mass. Adjustable propelling mechanism for vessels	416,323	Dec. 3	354	96	49	1419
Collins, Samuel A., Troy, Ohio. Suspender-buckle	417,989	Dec. 24	2760	728	49	1934
Collins, Samuel F., Binghamton, N. Y. Valve	411,856	Oct. 1	123	31	49	25
Collum, Martin H., assignor to Collum Steam Pump-Governor Company, Denver, Colo. Speed-governor	417,770	Dec. 24	2432	641	49	1871
Collum Steam Pump Governor Company. (See Collum, Martin H., assignor.)						
Collyer, Charles W., Rochester, N. Y., assignor to W. S. King, Minneapolis, Minn. Seam-pressing machine	414,754	Nov. 12	877	227	49	921
Colton & Company, G. D. (See Anderson, Abraham, assignor.)						
Cotter's Patent Fire Arms Manufacturing Company. (See Elbets, Carl J., assignor.)	413,132	Oct. 15	1989	519	49	491
Colwell, Evander N., assignor of one-half to C. F. Kennweg, Allegheny, Pa. Manufacturing draw-heads	417,406	Dec. 17	1864	490 500	49	1753
Comminge, Frank, Houston, Tex. Automatic fan						
Composite Cell Company. (See Meyer, Frederick A., assignor.)						
Compressed Paper Box Company. (See House, Henry A., assignor.)						
Compton, Norris M., and W. H. Longrey, Sullivanville, N. Y. Thill-coupling	412,671	Oct. 1	421	110	49	85
Comrie, Jennings, Gloversville, N. Y. Glove	416,358	Dec. 3	369	81	49	1429
Comstock, Chester, Brooklynn, assignor to Iron Clad Manufacturing Company, New York, N. Y. Enamelled iron-ware	415,161	Nov. 12	1517	.....	49	1037
Comstock, Harry, assignor to Hunter & Comstock Arms Company, Fulton, N. Y. Gun-lock	414,796	Nov. 12	938	243	49	933

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Comstock, Harry, assignor to Hunter & Comstock Arms Company, Fulton, N. Y. Gun-lock	414,797	Nov. 12	940	244	49	933
Conant, Henry J., Watertown, Mass. Electrical regulating apparatus	414,191	Nov. 5	17	4, 5	49	742
Condon Bros. Shoe Company. (See Sarrent, William D., assignor.)						
Conisbee, Thomas S. (See Conisbee, William and T. S.)						
Conisbee, William and T. S., Lambeth, county of Surrey, assignors to D. D. Mater, J. G. Melgus, and L. S. Baxendale, London, England. Color-printing machine	412,072	Oct. 1	422	{ 110 111 }	49	85
Conklin, Calvin W., assignor to A. M. Nye, Auburn, N. Y. Spring-tooth harrow	416,905	Dec. 10	1234	336	49	1623
Conklin, Joseph L., Brooklyn, N. Y. Protecting railway-trains	416,713	Dec. 10	842	229	49	1545
Conklin, Joseph L., Brooklyn, assignor of five-eighths to E. Huertel, New York, N. Y., and W. H. Rushforth, Rutherford Park, N. J. Mechanical movement	412,841	Oct. 15	1559	406	49	318
Conley, Thomas H., and J. Andrews, Ware, Mass. Spinning-mule	415,025	Nov. 12	1282	335	49	1000
Conlon, Thomas P., Chicago, Ill. Beer-muller	416,442	Dec. 3	432	116	49	1456
Conn, John, Valparaiso, Ind. Door-check	414,495	Nov. 5	453	122	49	838
Connell, Rufus A., Whigham, Ga. Manure-distributor	413,174	Oct. 22	2064	537	49	422
Connor, James H. (See Driscoll, William, assignor.)						
Connor, John, Whitesone, N. Y. Door-lock	418,400	Dec. 31	3399	{ 887 888 }	49	2067
Conover, George, Southington, Conn. Breach-loading ordnance	413,598	Oct. 22	2963	700	49	544
Conover, George M., Cleveland, Ohio. Gage-knife	417,859	Dec. 24	3267	676	49	1816
Conrad, Frank P., assignor of one-half to L. H. Pratt, Buffalo, N. Y. Vehicle-spring	414,496	Nov. 5	453	122	49	838
Conrader, Rudolph, Erie, Pa. Machine for turning, grinding, and polishing spherical bodies	418,330	Dec. 31	3531	{ 869 870 }	49	2093
Conroy, Bartholomew W., Port Huron, Mich. Thrill-coupling	414,497	Nov. 5	484	123	49	838
Conroy, James C., Pittsburg, Pa., assignor of one-half to Union Water Meter Company, Worcester, Mass. Gas-pressure-reducing station for streets	414,498	Nov. 5	485	123	49	838
Consolidated Button Hole Finishing Machine Company. (See Thomson and Phelps, assignors.)						
Consolidated Manufacturing Company. (See Cabell, Milton S., assignor.)						
Consolidated Temperature Controlling Company. (See Thompson, Hiram E., assignor.)						
Constantine, Thomas S. (See Groth, William, assignor.)						
Continental Oxygen Company. (See Brin, Léon Q., assignor.)						
Continental Oxygen Company. (See Chapman, Leonard, assignor.)						
Continental Steel Car Wheel Company. (See Bean, Theodore W., assignor.) (Reissue.)						
Converse, Edmund. (See Percival, Herbert E., assignor.)						
Converse, Edmund, et al. (See Goulding, Alfred, assignor.)						
Converse, Edmund, et al. (See Howes, Albert P., assignor.)						
Converse, Edmund, et al. (See Richardson, Frank A., assignor.)						
Conz, Gustav W. M., Ulm, Württemberg, Germany. Electrical signal apparatus	416,572	Dec. 3	631	{ 171 172 }	49	1498
Cook, Addison M., Bridgehampton, assignor to A. S. French, Brooklyn, N. Y. Scrub-brush machine	412,948	Oct. 15	1714	448	49	347
Cook, Charles A., assignor to Burns, Silver & Company, Bridgeport, Conn. Car-brake	416,996	Dec. 10	1230	{ 338 339 }	49	1623
Cook, Charles A., assignor to Burns, Silver & Company, Bridgeport, Conn. Car-brake	416,997	Dec. 10	1238	339	49	1624
Cook, Charles A., assignor to Burns, Silver & Company, Bridgeport, Conn. Car-brake	416,998	Dec. 10	1340	{ 339 340 }	49	1624
Cook, Eugene, Kalamazoo, Mich. Vehicle-spring	414,576	Nov. 12	1069	274	49	956
Cook, Frederic, and B. Thomsen, New Orleans, La. Feed-water regulator and low-water alarm	417,150	Dec. 10	1488	405	49	1672
Cook, Frederick W. (See Norton and Cook, assignors.)						
Cook, Hiram T., assignor of one-half to F. D. Hopkins, Alba, Mich. Leaf and flower album	412,729	Oct. 15	1409	368	49	291
Cook, James, assignor of one-half to B. C. Algie, Ogdensburg, N. Y. Attachment-holder for sewing-machines	412,104	Oct. 1	522	144	49	111
Cook, John R., Hico, Tex. Cotton-planter	413,033	Oct. 15	1642	482	49	743
Cook, John R., and C. S. Hinchman, Rushville, Ind. Rotary engine	414,192	Nov. 5	35	5	49	373
Cook, Joshua F., Port Matson, assignor of five-twelfths to G. T. Moore and T. K. Bartling, Liverpool, Nova Scotia, Canada. Car-coupling	412,640	Dec. 31	3770	984	49	2142
Cook, Leonard H. (See Leach, Henry B., assignor.)						
Cook, Marcus, assignor of one-half to T. C. Berry, Brookport, N. Y. Carriage-seat	417,980	Dec. 24	2761	738	49	1934
Cook, Perry W., Baltimore, Ohio. Wire-fence machine	415,340	Nov. 19	1618	417	49	1065
Cook, Thomas W. G., New York, N. Y. Buttoner	413,034	Oct. 15	1944	482	49	743
Cook, William, assignor to himself and P. D. Reed, New York, N. Y. Letter-box	413,282	Oct. 29	3173	349	49	659
Cooke, John S., Chicago, Ill. Apparatus for cooling beer	414,198	Nov. 5	35	5	49	373
Cooksey, George. (See Horryman and Cooksey.)						
Coole, Benjamin S. (See Morris and Coole.)						
Cooley, Charles A., Montreal, Quebec, Canada. Machine for covering wire	416,254	Dec. 3	147	40, 41	49	1297
Cooley, Charles H., assignor to Pratt & Whitney Company, Hartford, Conn. Grain-scales	416,714	Dec. 10	845	{ 329 330 }	49	1545
Cooley, William H., Newton, Mass. Sash-fastener	416,359	Dec. 3	310	81	49	1430
Cooley, William H., Brookport, assignor of fifty-one hundredths to J. P. Dudley, J. M. Richmond, and W. H. H. Newman, Buffalo, N. Y. Magneto-electric machine	416,443	Dec. 3	438	{ 117 118 }	49	1456
Cooney, Seben A., New York, N. Y. Spoon-holder	417,151	Dec. 10	1489	405	49	1672
Cooper, Augustus S., Saginaw, Mich. Electro-photographic pen	417,407	Dec. 17	1566	590	49	1753
Cooper, Charles B., assignor to W. F. Wallace and H. E. Cooper, New York, N. Y. Pipe-elbow die	416,031	Nov. 26	2859	{ 747 748 }	49	1321
Cooper, Charles F., Cedar Rapids, Iowa, assignor of one-half to J. W. Cooper, Mount Vernon, Dak. Ter. Carpet-stretcher	412,842	Oct. 15	1560	407	49	312
Cooper, Charles H., Watertown, N. Y. Architectural wire fabric	416,836	Dec. 10	1001	271	49	1575
Cooper, Edward R., Austin, Ill. Temporary blinder	418,641	Dec. 31	3771	{ 984 985 }	49	2142
Cooper, Hugh E., et al. (See Cooper, Charles B., assignor.)						
Cooper, John H., and G. Blunt, Leicester, England. Circular rib knitting machine	412,600	Oct. 8	1302	{ 315 316 317 }	49	943
Cooper, John R., Rochester, N. Y. Inkstand	412,601	Oct. 8	1306	317	49	243
Cooper, John W. (See Cooper, Charles F., assignor.)						
Cooper, Thomas, New York, N. Y. Auxiliary fire-alarm system	416,444	Dec. 3	437	{ 118 119 }	49	1457
Copas, William A. (See Billings, Benjamin F., assignor.)						
Copeland, James S., Hartford, Conn., assignor to Pope Manufacturing Company, Portland, Me. Velocipede	412,322	Oct. 8	788	205	49	161

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Drawg.	Vol.	Page.
Copelin, Thomas E., Chicago, Ill., assignor of one-third to F. J., Jr., and J. F. Kernan, Utica, N. Y. Screw-driver.....	418,167	Dec. 31	3049	800	49	1096
Coplen, John D., Denver, Colo. Machine for feeding, sizing, and washing ores.....	417,907	Dec. 24	2632	694 695	49	1099
Cop, N. Y. Fork-guard.....	413,330	Oct. 22	2353	699	49	475
Copley, Frederick S., Stapleton, N. Y. Skylight.....	418,445	Dec. 3	438	119	49	1457
Copper, Frank P., and A. Bair, Tiffin, Ohio. Signal-lantern.....	417,745	Dec. 24	2530	015	49	1851
Corbett, George, Bradford, Pa. Well-drilling rig.....	412,602	Oct. 8	1307	317	49	943
Corbett, Joseph, assignor to Automatic Selling Machine Company, New York, N. Y. Coin-controlled vending-machine.....	416,827	Dec. 10	1002	271 272 273	49	1575
Corbett, Joseph, assignor to Automatic Selling Machine Company, New York, N. Y. Vending-machine.....	416,828	Dec. 10	1005	272 273	49	1576
Corbin, Charles C. (See Seales, Edward B., assignor.)						
Corbin, P. & F. (See Arens, August, assignor.)						
Corbin, P. & F. (See Case, Cromwell O., assignor.)						
Corbin, P. & F. (See O'Keefe, Edward J., assignor.)						
Corcoran, Bernard J., New York, N. Y. Separator.....	415,003	Nov. 12	1375	359	49	1018
Corderman, Solomon, Waveland, Iowa. Harrow.....	417,544	Dec. 17	2103	559	49	1797
Cordes, Joseph C., et al. (See Nickels, John, assignor.)						
Cording, Albert. (See Steuwerwald and Cording.)						
Corell, John, Brooklyn, N. Y. Steam-trap.....	412,494	Oct. 22	2537	657	49	513
Corey, George D., Lowell, assignor to M. J. Benjamin, Greenfield, Mass. Egg-carrier.....	418,450	Dec. 31	3474	909	49	2022
Cornell, Delos, Boon Grove, Ind. Grinding-mill.....	418,168	Dec. 31	3050	800	49	1997
Cornell, Elijah B., assignor to Natural Gas Fuel Company, Philadelphia, Pa. Heating furnaces.....	418,275	Dec. 31	3304	838 839	49	2028
Cornell, Elijah B., assignor to Natural Gas Fuel Company, Philadelphia, Pa. Apparatus for heating in furnaces.....	418,451	Dec. 31	3475	909	49	2023
Cornell, John M., New York, N. Y. Skylight ventilating sash-bar.....	418,169	Dec. 31	3056	801	49	1998
Cornell, John M., New York, N. Y. Foundry-flask.....	418,170	Dec. 31	3057	802	49	1998
Cornell, Jonas. (See Baird and Cornell.)						
Cornell, Joseph, Potsdam, N. Y. Table.....	416,398	Dec. 3	309	98	49	1442
Cornely, Emil and R., Paris, France. Embroidering-machine.....	417,311	Dec. 17	1718	462	49	1727
Cornely, Robert. (See Cornely, Emil and R.)						
Cornett, Robert H., St. John, Kans. Dish-washing machine.....	414,023	Oct. 29	3321	866	49	083
Corrwalls, John. (See Kruse, Henry C., assignor.)						
Cortrothers, Samuel, Grifton, W. Va. Gate-latch.....	417,408	Dec. 3	1867	500	49	1753
Cortwell, Fred H., assignor of one-half to G. E. Hunter, Elgin, Ill. Device for suspending lamps.....	416,235	Dec. 3	149	41	49	1298
Co-tright Metal Roofing Company. (See Norcross, William M., assignor.)						
Corwin, Hamilton S. (See Payne, Charles H., assignor.)						
Cory, Alfred R., et al. (See Beach, Adam, assignor.)						
Cosette, Peter, Crystal Falls, Mich. Nut-wrench.....	416,154	Dec. 3	8	2	49	1370
Cosgrove, John, Oxford, Ind. Thill-coupling.....	413,335	Oct. 22	2310	600	49	469
Costello, Thomas H., Lake, assignor to A. H. Andrews & Company, Chicago, Ill. Black-board-eraser.....	412,876	Oct. 15	1606	419	49	327
Cottram, William H., Washington, Me. Producing stencils, &c.....	414,104	Oct. 29	3436	894	49	707
Cott, Charles M., Mendville, Pa. Machine for straightening sheets of paper.....	418,310	Dec. 31	3266	852	49	2040
Cottis, Annie R., et al. (See Cottis, Freeman N., assignor.)						
Cottle, Freeman N., assignor to D. B. Turner and A. R. Cottle, Chicago, Ill. Exhibiting device.....	412,698	Oct. 8	1353	352	49	273
Cottle, Luther M., assignor to T. B. Jeffery and R. P. Gormully, Chicago, Ill. Making velocipede-frames.....	414,194	Nov. 5	28	5.6	49	743
Cottrell, Calvert B., Stonington, Conn. Cylinder printing-machine.....	412,877	Oct. 15	1607	419	49	327
Cottrell, Calvert B., Westerly, R. I. Chromatic-printing machine.....	412,878	Oct. 15	1611	420	49	327
Cottrell, Calvert B., Westerly, R. I. Set-off mechanism for printing-presses.....	414,600	Nov. 12	775	301	49	901
Couch, Joel, assignor of one-half to F. L. Hall, Clayton, N. Y. Automatic mast-support.....	413,336	Oct. 22	2310	600	49	469
Couch, Percy T., assignor of one-half to Thompson & Campbell, Philadelphia, Pa. Roller-mill adjustment.....	417,409	Dec. 17	1568	501	49	1754
Coughlin, Samuel B. (See Subers, Thomas N., assignor.)						
Coult, Joseph C., Crockett, Tex. Means for controlling the flow of navigable rivers or other waters.....	411,979	Oct. 1	290	75	49	59
Coult, Joseph C. (See Coult, John, assignor.)						
Comp, Amanda B. (See Comp, John, assignor.)						
Comp, John, assignor to A. B. Comp, Euclid, Ohio. Car-coupling.....	416,668	Dec. 3	779	213	49	1534
Cousins, Robert H., McKinney Tex. Beam or girder.....	417,296	Dec. 24	3331	016	49	1851
Covel, Mifflin, Chicago, Ill. Construction of hullings.....	414,294	Nov. 5	167	43	49	711
Covell, Edgar C., and E. S. Cram, Laconia, N. H. Circular-kutting machine.....	414,105	Oct. 29	3437	894 895	49	707
Covert, D. Estling S., and J. K. Pampely Chicago, Ill.; said Pampely assignor to said Covert. Secondary battery.....	416,573	Dec. 3	634	172	49	1496
Covert, James C., West Troy, N. Y. Horse-hoe.....	418,500	Dec. 31	3550	929	49	2029
Coward, William H., Bath, county of Somerset, England. Pulverizing-machine.....	413,388	Oct. 22	2304	630	49	484
Cowdon, John, New Orleans, La. Arch-bridge.....	414,759	Nov. 12	1025	387	49	951
Cowen, Robert, Cambridge, and P. W. Pratt, Abington, Mass. Bath-mitten.....	415,026	Nov. 12	1263	335	49	1000
Cowgill, James, Lowell, assignor of one-half to F. Calvert, Westford, Mass. Shuttle-binding device for looms.....	417,312	Dec. 17	1719	462	49	1727
Cowing, Albert A., Watkins, N. Y. Eyeglasses.....	414,106	Oct. 29	3446	895	49	708
Cowles, Alfred H. and E. H., Cleveland, Ohio. Manganese bronze and alloy of commerce.....	415,832	Nov. 26	2552		49	1506
Cowles, Eugene H., and E. H., Cleveland, Ohio. Manganese bronze and alloy of commerce.....						
Cowles, James A., Chicago, Ill. Hydrocarbon-barnes.....						
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	417,152	Dec. 10	1490	406	49	1673
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,107	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,108	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,109	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,110	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,111	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,112	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,113	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,114	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,115	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,116	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,117	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,118	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,119	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,120	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,121	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,122	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,123	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,124	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,125	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,126	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,127	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,128	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,129	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,130	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,131	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,132	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,133	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,134	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,135	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,136	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,137	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,138	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,139	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,140	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,141	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,142	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,143	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,144	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,145	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,146	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,147	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,148	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,149	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,150	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,151	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,152	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,153	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,154	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,155	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,156	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,157	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,158	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,159	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,160	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,161	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,162	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,163	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,164	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,165	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,166	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,167	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,168	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,169	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,170	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,171	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,172	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,173	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,174	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,175	Oct. 29	3441	895	49	708
Cowley, James T., Lowell, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus.....	414,176	Oct. 29				

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. et	Vol.	Page.
Cox, Harry B., assignor to H. B. Cox Electric Company, New Haven, Conn. Electrode for medical batteries	412,163	Oct. 1	553	144	49	111
Cox, John. (See Reichert, Adam, assignor.)						
Cox, Joseph F. and C. A., Louisville, Ky. Electric signal and brake device	414,305	Nov. 5	168	42	49	771
Cox-Walker, Edward, and A. A. C. Swinton, Westminster, county of Middlesex, England. Electric bell	414,612	Nov. 5	667	174	49	872
Coyle, Andrew M. (See Rogers and Coyle.)						
Crabill, John A., Eminence, Ky. Check-book	417,717	Dec. 24	9333	616	49	1851
Crafts, Samuel F., Hamden, Conn. Apparatus for vaporizing fuel-oil	412,338	Oct. 8	669	177	49	139
Craig, Samuel W. (See Simonnet, Jean B. A., assignor.)						
Craig, Edward, administrator. (See Naylor, William.)						
Craig, George W., Charleston, W. Va. Weighing-scales	416,359	Dec. 3	370	98, 99	49	1443
Craig, John A., executor. (See Wetzel, Horace A.)						
Craig, Polly, et al. (See Elkins, William H., assignor.)						
Craig, Thomas H., assignor to E. F. Bowen, Providence, R. I. Feeding mechanism for sewing-machines	416,446	Dec. 3	440	119	49	1457
Craigie, Hugh H., Stamford, Conn. Balanced float-valve	418,376	Dec. 31	3207	839	49	3028
Craik, Henry W., Matteson, assignor of one-half to G. Morland, Toledo, Ill. Churn	414,632	Nov. 5	694	180	49	878
Cram, Elisha S. (See Covell and Cram.)						
Cram, Frank H., Morrisville, Vt., assignor to F. A. Cushman, Plymouth, N. H. Paper-making machine	417,545	Dec. 17	2105	569	49	1798
Cramer, A. F. C., et al. (See Instl, Johann A. W., assignor.)						
Crampton, Albert, assignor of one-half to E. Belden, Green Island, N. Y. Sticker-head	418,366	Dec. 31	3392	874	49	2057
Crampton, Henry B., Syracuse, N. Y. Attachment for overshoes	415,027	Nov. 12	1284	335	49	1000
Crandall, Charles M., Waverly, N. Y. Toy or puzzle	413,612	Oct. 22	9711	704	49	548
Crandall, Lucius S., Syracuse, N. Y. Type-writing machine	414,266	Nov. 5	170	43	49	771
Craue, Alexander L., Hot Springs, Ark. Making soap	413,635	Oct. 15	1844		49	373
Craue, Hugh C., Forest, Miss. Combined letter-stamp canceler, dater, and numerical register	413,847	Oct. 29	3042	793	49	692
Crane, Samuel N., Brooklyn, N. Y. Hinge	418,332	Dec. 31	3302	863	49	2947
Crane, Thomas R., Heathsville, Va. Agitator for fertilizer-drills	418,501	Dec. 31	3351	929	49	3009
Crane, Thomas R., Heathsville, Va. Spring-tooth harrow	418,502	Dec. 31	3352	929	49	3099
Crane, Thomas R., Heathsville, Va. Attachment for holding drill-tubes	418,503	Dec. 31	3353	929	49	3099
Crane, Thomas S. (See Kittredge and Crane.)						
Cranksaw, John H. (See MacLaurin, George S., assignor.)						
Crary, Hamilton, assignor to J. H. Smith, Chicago, Ill. Photograph-burnishing machine	417,153	Dec. 10	1490	406	49	1673
Crary, Thomas F., assignor of one-half to E. B. and J. A. Redmond, Middleport, Ohio. Packing and measuring vessel	417,667	Dec. 17	2926	601	49	1830
Craven, George H., Philadelphia, Pa. Dyeing-machine	417,908	Dec. 34	2634	605	49	1910
Crawford, Amos H. and J. T., Liverpool, N. Y. Lantern	417,000	Dec. 10	1245	340	49	1625
Crawford, Charles S., Cleveland, Ohio. Machine for playing upon musical instruments	416,093	Nov. 20	2966	773	49	1342
Crawford, Dwight H. (See Eliam, Thomas, Crawford, and Hardwick.)						
Crawford, George W., and W. A. Ross, Kenton, Ohio. Apparatus for vaporizing and burning crude oil	411,785	Oct. 1	18	7	49	7
Crawford, James, assignor of one-half to J. H. Young, Cambridge, Mass. Service-box for water-closets	414,942	Nov. 19	1162	303	49	975
Crawford, Jasper T. (See Crawford, Amos H. and J. T.)						
Crawford, Notman M., Harrisburg, Pa. Lantern	413,229	Nov. 19	1706	443	49	1081
Crawford, William H., Paris, Tex. Cresser	413,175	Oct. 22	2965	537	49	422
Cresger, Harry M. (See Cresger, Jonathan and H. M.)						
Cresger, Jonathan, Cincinnati, Ohio. Clay-pulverizer	412,471	Oct. 8	1009	363	49	205
Cresger, Jonathan and H. M., Cincinnati, Ohio. Pitman	413,929	Dec. 29	31, 4	829	49	632
Cree, William O., Beverly, Mass. Blade-holder	416,902	Dec. 10	1117	304	49	1298
Creigh, Alfred E., Roncoverte, W. Va. Automatic knife-grinder	417,001	Dec. 10	1245	341	49	1625
Crichton, William H. P. (See Bell and Crichton.)						
Cripeau, Henry T., Haverhill, Mass., assignor to F. C. Boyd, Bridgeport, Conn. Automatic vending-machine	417,354	Dec. 17	1794	482	49	1739
Cresmer, Harman, et al. (See Knapp and Cresmer, assignors.)						
Cresmer, John H. (See Knapp and Cresmer.)						
Crichton, Robert, Parsons, Kans. Machine for making drills or auger-bits	417,410	Dec. 17	1869	501	49	1754
Crist, William E., Brooklyn, N. Y. Gas-engine	417,471	Dec. 17	1855	522	49	1772
Crist, William E., Brooklyn, N. Y. Ignitor for gas-engines	417,472	Dec. 17	1859	522	49	1772
Criswell, Robert D. (See Heaton and Criswell.)						
Crittenden, James H., Fall River, Mass. Car-coupling	411,960	Oct. 1	291	76	49	60
Crockett, Warren A., and J. N. Hatcher, Americus, Mo. Device for counting stamps	414,142	Oct. 29	3493	907	49	719
Croft, Henry, Washington, D. C. Specie-cup	415,604	Oct. 8	1309	316	49	244
Croke, Edward, Straalsburg, Mo. Check-row corn-planter	412,368	Oct. 8	862	225	49	175
Crompton Loom Works. (See Wyman, Horace, assignor.)						
Crompton Loom Works. (See Wyman and Gordon, assignors.)						
Cromwell, William A. (See Coe, Smedley, and Cromwell.)						
Cronan, James W. (See Peacock and Cronan.)						
Croner, William, Brooklyn, N. Y. Base-ball shoe	412,472	Oct. 8	1010	263	49	306
Cronk, Adolphus V., assignor of two-thirds to A. H. Schaefer and J. W. Bernan, Ord, Nebr. Car-coupling	417,901	Dec. 24	2702	728	49	1035
Crooker, Alfred M., Watertown, Mass. Cotton gin and renovator	418,111	Dec. 24	2251	754	49	1989
Cropp, Francis M., Severance, Kans. Elevating device for hay and grain stackers	415,900	Nov. 26	2647	693	49	1276
Crosby, Albert B. (See Carpenter and Crosby.)						
Crosby, Daniel W., Boston, Mass. Packing for piston-rods	414,024	Oct. 29	3392	866	49	683
Crosby, Frank L., Farmer City, Ill. Name	415,028	Nov. 12	1285	336	49	1000
Crosby, Frank P., assignor of two-thirds to J. J. Sepple and L. Witzemann, Chicago, Ill. Vapor-burner	418,574	Dec. 3	636	172	49	1496
Crosby, James B., Niles, Mich. Trimming and slotting machine	416,829	Dec. 10	1010	273	49	1577
Crosby Steam Gage and Valve Company. (See Bosworth, Charles B., assignor.)						
Cross, Albert N., Daly, W. Va. Ditching-machine	413,311	Dec. 31	3266	852	49	2040
Cross, Frank L., New York, N. Y. Corset-fastening	412,680	Oct. 1	352	92	49	71
Cross, George F. (See Stiles and Cross.)						
Cross, John K., et al. (See Finch, John M., assignor.)						
Cross, William G., Little Falls, N. Y. Chair	416,324	Dec. 3	259	66	49	1420

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. gr.	Vol.	Page.
Crouch, George, New York, N. Y. Trunk-corner.....	412,473	Oct. 8	1011	293	49	296
Gronghin, John J., New York, N. Y. Stena-winding watch.....	418,491	Dec. 31	3491	888	49	2968
Crow, William K., Buffalo, assignor to himself and E. R. Ulrich, Jr., Springfield, Ill. Com- veyer.....	412,940	Oct. 15	1716	448	49	347
Crulshank, William Y., Danville, Pa. Carriage adapted to run on wire cables.....	413,389	Oct. 22	2395	021	49	484
Crull, Eugene S., Mount Carmel, Ill. Telegraph key.....	413,848	Oct. 29	3044	753	49	622
Crull, Lafayette, Harrisburg, Pa. Wall facing and decoration.....	417,322	Dec. 17	1692	431	49	1764
Crull, Lafayette, Harrisburg, Pa. Uniting tiles to walls.....	417,323	Dec. 17	1692	431	49	1764
Cubley, Edwin J., Ravenswood, Ill. Guitar.....	416,715	Dec. 10	848	330	49	1545
Culbertson, John L., assignor of one-half to J. A. Pryor, Hendrysburg, Ohio. Stove-pipe thimble.....	417,154	Dec. 10	1492	406	49	1673
Culbertson, Robert C., near Hale, Mo. Harrow-tooth.....	416,490	Dec. 3	372	99	49	1433
Cullthane, James A., Washington, D. C. Lemon-squeezer.....	414,490	Nov. 5	487	123	49	829
Culmer, John W., New Brighton, assignor of one-half to W. A. McCool, Beaver Falls, Pa. Butter working tray.....	418,277	Dec. 31	3210	839	49	9029
Culmer, John W., New Brighton, assignor of one-half to W. A. McCool, Beaver Falls, Pa. Butter-press.....	418,278	Dec. 31	3211	839	49	9029
Culver, Fitz E., Chicago, Ill. Device for wire-cable railways.....	414,691	Nov. 12	777	291	49	901
Culver, Joseph E., Jersey City, N. J. Steam-generator.....	414,297	Nov. 5	172	43	49	778
Culver, Joseph E., Jersey City, N. J. Steam-generator.....	417,385	Dec. 17	1841	494	49	1742
Cuning, Alfred A., Hingham, Mass. Forming stiches.....	413,647	Oct. 29	2704	718	49	569
Cuning, Mari A. (See Müller and Cuning.)						
Cunning, Alfred A., Hingham, Mass., and E. J. Peirce, Jr., Woonsocket, R. I., assignors to Wardwell Sewing Machine Company, New York, N. Y. Wax-thread sewing-machine.....	417,092	Dec. 10	1247	342	49	1626
Cummings, Charles C. (See Franklin, Rhodolph H., assignor.)						
Cummings, Charles J., Preble, N. Y. Potato-digger.....	415,188	Nov. 19	1533	400	49	1052
Cummings, George W., Cohoes, N. Y. Plush-burr for knitting-machines.....	416,236	Dec. 3	151	41	49	1398
Cummings, Henry H., Malden, Mass. Rivet.....	414,682	Nov. 12	778	201	49	901
Cummings, Henry H., Malden, Mass. Machine for making rivets.....	414,683	Nov. 12	779	203	49	901
Cummings, Henry H., Malden, Mass. Manufacture of lacing-books for shoes.....	414,684	Nov. 12	783	203	49	902
Cummings, Henry H., Malden, Mass. Manufacture of hollow rivets.....	414,735	Nov. 12	879	227	49	921
Cummings, John K., St. Louis, Mo. Loe for annealing glass.....	412,973	Oct. 1	455	111	49	86
Cummings, John R., assignor to American Press Association, New York, N. Y. Stereo- type-plate separating, trimming, and grooving machine.....	416,716	Dec. 10	850	320	49	1545
Cummings, John R., New York, N. Y., assignor, by mesne assignments, to American Press Association, of Illinois. Stereotype-casting apparatus.....	416,717	Dec. 10	853	320	49	1544
Cummings, Montevill D., New Albany, Ohio. Fencing.....	416,718	Dec. 10	854	321	49	1546
Cummings, Perley D., Portland, Me. Can-wiping machine.....	416,212	Dec. 3	91	26	49	1386
Cummings, Uriah, Buffalo, N. Y. Air-compressor.....	412,474	Oct. 8	1012	284	49	296
Cummock, Victor I., Lowell, Mass. Electric stop-motion for twisting-machines, &c.....	414,025	Oct. 29	3392	265	49	683
Cunningham, Henry C., Topeka, Kans. Train-order file for locomotive-engineers.....	415,189	Nov. 19	1534	400	49	1052
Cunningham, James M., assignor of one-half to J. F. Estill, Lewisburg, W. Va. Adjust- able bit.....	411,953	Oct. 1	256	67	49	54
Cunningham Son & Company, James. (See Royce, George H., assignor.)						
Cupples, Samuel. (See West, James, assignor.)						
Carl, Jesse B., Des Moines, Iowa. Self-heating sad-iron.....	416,156	Dec. 3	11	3	40	1371
Curley, Thomas, assignor of one-half to W. Bailey, Troy, N. Y. Coupling for rail-car steam heating pipes.....	416,325	Dec. 3	257	67, 68	49	1439
Currie, Stanley C. C., Philadelphia, Pa., assignor to United Electric Improvement Com- pany, Gloucester City, N. J. Forming plates for secondary batteries.....	411,786	Oct. 1	19	7	40	7
Currie, Stanley C. C., Philadelphia, Pa., assignor to United Electric Improvement Com- pany, Gloucester City, N. J. Apparatus for forming secondary-battery plates.....	411,787	Oct. 1	21	7	49	7
Currie, Stanley C. C., Philadelphia, Pa., assignor to United Electric Improvement Com- pany, Gloucester City, N. J. Electrolytically reducing plates for secondary batteries.....	412,322	Oct. 8	791	206	49	1028
Currie, Stanley C. C., Philadelphia, Pa., assignor to United Electric Improvement Com- pany, Gloucester City, N. J. System of electrical distribution by secondary batteries.....	415,768	Nov. 26	2463	643	49	1908
Currin, John, Southbridge, Mass., assignor to F. A. Hardy, Chicago, Ill. Eyeglasses.....	412,239	Oct. 8	671	177	49	140
Curry, Andrew J. and G. W., St. Louis, Mo. Railway-rail or other joint.....	415,290	Nov. 19	1708	443	49	1082
Curry, George W. (See Curry, Andrew J. and G. W.)						
Curtin, Henry, Little Falls, N. Y. Thread-guiding device for knitting-machines.....	412,475	Oct. 8	1019	285	49	297
Curtis, Charles B., assignor of one-half to E. M. Hersey, Bangor, Me. Mop-head.....	414,143	Oct. 29	3495	908	49	1319
Curtis, Charles R., Fall River, Mass. Mop-head.....	416,213	Dec. 3	93	27	49	737
Curtis, John B., Cambridge, assignor of one-half to C. F. Martine, Boston, Mass. Making hollow glassware.....	414,144	Oct. 29	3496	908	49	1319
Curtis, William G., Philadelphia, Pa. Combined drawing and measuring instrument.....	416,719	Dec. 10	856	331	49	1547
Curtis, William H., et al. (See Olmsted, David, assignor.)						
Curzon, James. (See Seely and Curzon.)						
Cushing, George. (See Paine, William H., assignor.)						
Cushing, George W., Omaha, Nebr. Draw-hat stop for railway-cars.....	412,843	Oct. 15	1561	407	49	318
Cushing, John P., Beverly, Mass. Electric conduit.....	412,476	Oct. 8	1020	296	49	297
Cushing, William H., Pittsfield, Mass. Foot-brush.....	417,155	Dec. 10	1493	407	49	1673
Cushman, Belle V., New York, N. Y. Tooth-brush.....	416,491	Dec. 3	372	99	49	1433
Cushman, Francis A. (See Cram, Frank H., assignor.)						
Cushman, Francis A., Plymouth, N. H. Paper-making machine.....	417,546	Dec. 17	2106	569	49	1728
Cushman, Henry T., North Bennington, Vt. Sizing-darning last.....	416,214	Dec. 3	93	27	49	1387
Cushman, Wellington B., West Line, Mo. Dish-washer.....	413,822	Oct. 29	3010	784	49	615
Cusson, Japhet S., assignor of two-thirds to J. F. and C. E. Glidden, De Kalb, Ill. Sweat-pad.....	413,648	Oct. 29	2705	718	49	569
Cussone, John, Glen Allen, Va. Making memorandum-books.....	414,509	Nov. 5	488	124	49	836
Custer, Aaron, Montpelier, Vt. One separating or file amalgamating machine.....	414,695	Nov. 12	784	203	49	902
Cyrenius, Frederick H., Oswego, N. Y. Foot-brush.....	414,143	Oct. 29	3496	908	49	1319
Daelenbach, Charles R., Allegheny, Pa. Air-brake.....	415,162	Nov. 12	1518	391	49	1038
Daelenbach, Charles R., Allegheny, assignor of two-thirds to R. Glasser and H. Schoen- feldt, Pittsburgh, Pa. Railway-switch.....	417,156	Dec. 10	1494	407	49	1673
Dalt Electric Light Company. (See Reame, Joseph M., assignor.)						
Daft, Leo, Plainfield, N. J. Electric railway.....	412,605	Oct. 8	1210	318	49	244
Dahl & Co. (See Eliaessner, Emil, assignor.)						
Dahlgren, Adolf. (See Dennis, Adrien W. J., assignor.)						
Daley, Asa G., et al. (See Senechal, Francis G., assignor.)						
Dainler, Gottlieb, Cannstadt, Württemberg, Germany. Gas or petroleum motor engine.....	418,112	Dec. 24	2954	775	49	1970

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	De't.	Vol.	Page.
Dale, Alfred B., Ithaca, N. Y. Wagon	411,788	Oct. 1	32	7	49	8
Daley, John J., Brooklyn, N. Y. Reversing mechanism for ironing-machines	415,694	Nov. 12	1376	360	49	1612
Daly, John H., Portage, Wis. Valve	417,003	Dec. 10	1256	344	49	1627
Dalzell, J. Allan, Hartford, assignor to Schuyler Electric Company, Middletown, Conn. Commutator	416,730	Dec. 10	857	231	49	1547
Damm, Frederick C., Cleveland, Ohio. Conveying, ornamenting, and drying machine	415,241	Nov. 19	1619	418	49	1666
Dandlflcker, Gottlieb, Ludwigshafen-on-the-Rhine, Bavaria, and H. A. Bernthsen, Mannheim, Baden assignors to Badische Anilin and Soda Fabrik, Mannheim, Germany. Manufacture of toluidine-blue	416,055	Nov. 20	2896		49	1328
Dando, Joseph M., et al. (See Disman, Joseph, assignor.)						
Danford, Ebenezer, and C. E. A. Sagle, Aurora, Ill. Smoke-consumer	417,411	Dec. 17	1873	502	49	1754
Danford, Ebenezer, and C. E. A. Sagle, Aurora, Ill. Smoke-consumer	417,412	Dec. 17	1874	502	49	1755
Danforth & Clark. (See Olin, Fred C., assignor.)						
Daniel, Thomas J., assignor of part to M. V. Medart, S. H. Bauman, and M. Loewenstein, St. Louis, Mo. Window	415,695	Nov. 12	1377	360	49	1619
Daniel, William H., Englewood, Ill. Inkstand	412,240	Oct. 8	672	178	49	140
Daniel, Jean M., Paris, France. Imitation white and colored marble	412,621	Oct. 1	355		49	71
Daniels, Clayton M., (See Rose, George B., assignor.)						
Daniels, Fred H., Worcester, Mass. Wire-drawing machine	412,477	Oct. 8	1022	266	49	207
Daniels, Fred H., Worcester, Mass. Mechanism for ceiling wire rods	415,448	Nov. 19	1950	506	49	1138
Daniels, Thomas F., Jr., Provo City, Utah Ter. Dynamo-electric machine	415,190	Nov. 19	1556	461	49	1052
Danielson, Carl M., Rockford, Ill. Pipe-holder	416,963	Dec. 10	1118	305	49	1598
Danner, Frederiek. (See Bugbee and Danner.)						
Darcy, Hugh, Gloucester, Mass. Hat-book	412,074	Oct. 1	428	111	49	86
Davis, Napoleon L., (See Goshue, Dargis, and Andrews.)						
Dark, Thomas, Buffalo, N. Y. Street receiver	416,830	Dec. 10	1012	273	49	1577
Darling, John, et al. (See Moore, John, assignor.)						
Darling, William H., assignor of two-thirds to L. Beck, Jr., and G. P. Harrington, New York, N. Y. Electric brake mechanism for cars	415,402	Dec. 31	3401	888	49	3068
Darnell, Calvin F., assignor of one-half to W. L. Taylor, Indianapolis, Ind. Fence	415,362	Nov. 19	1843	480	49	1107
Darnell, Calvin F., assignor of one-half to G. S. Wright, Indianapolis, Ind. Fence	415,363	Nov. 19	1844	480	49	1107
Dauchy, Arthur H., and P. Roberts, San Diego, Cal. Pocket folding rule	414,877	Nov. 12	1069	275	49	956
Dangherly, Jarvis A., St. Louis, Mo. Fence-post	415,366	Nov. 19	1856	428	49	1072
Davenport, James M., and B. P. Mitchell, Centerville, Mo. Fruit-gatherer	413,710	Oct. 29	2856	745	49	586
Davenport, Samuel A., (See Sturgeon, John C., assignor.)						
Davey, John F., assignor to himself and M. Burk, Marlborough, Mass. Pegging-machine	414,501	Nov. 5	489	124	49	839
Davey, Thomas, assignor of one-half to P. P. Sherry, Lynn, Mass. Split pulley	416,575	Dec. 3	632	173	49	1496
David, Isaac, Bladen, Nebr. Propelling and steering boats	414,308	Nov. 5	177	44	49	72
David, Jacob, Brooklyn, N. Y. Folding bed	412,478	Oct. 8	1024	266	49	208
Davidson, Charles O., Carrington, Mo. Tire-tightener	413,495	Oct. 22	2538	657	49	513
Davidson, John, and J. Taylor, Guelph, Ontario, Canada. Safety-lamp	414,377	Nov. 5	288	73	49	796
Davidson, Lewis C., Grand Rapids, Mich. Kettle for calcining gypsum	413,496	Oct. 22	2539	657	49	513
Davidson, Samuel C., Belfast, Ireland. Apparatus for drying tea, hops, sliced fruits, &c.	416,137	Dec. 3	12	3	4	1371
Davidson, Samuel C., Belfast, Ireland. Metal box or chest	417,813	Dec. 24	2459	658	49	1883
Davidson, Thomas, Montreal, Quebec, Canada. Apparatus for soldering the ends of cans	418,065	Dec. 31	3718	971	49	5132
Davies, Thomas E., Seymour, Conn. Cultivator and harrow	417,547	Dec. 17	2167	540	49	1792
Davis, Charles A., Washington, D. C. Handle for tools or other articles	412,479	Oct. 8	1026	267	49	208
Davis, Charles R., Raymond, Ill. Harrow	418,452	Dec. 31	3470	910	49	2063
Davis, Christopher C., Kansas City, Mo. Cooking utensil	412,730	Oct. 15	1410	308	49	291
Davis, Daniel, assignor to E. H. Davis, Elmira, N. Y. Curtain-hanger	415,823	Nov. 26	2553	667	49	1256
Davis, Daniel B., and J. J. Fisher, Laramie, Wyo. Ter. Stock-car	415,767	Nov. 26	2405	643	49	1229
Davis, Edwin F., Centralia, Kans. Mail-bag	416,576	Dec. 3	639	173	49	1497
Davis, Emory, Kane, Pa. Inkstand	413,390	Oct. 22	2596	621	49	464
Davis, Etta H., (See Davis, Daniel, assignor.)						
Davis, Francis G., Watertown, N. Y. Spring-platform for vehicles	415,096	Nov. 12	1378	300	49	1019
Davis & Furber Machine Company. (See Stone, Joseph H., assignor.)						
Davis, George A., (See Young and Davis.)						
Davis, George H., Washington, D. C., assignor to A. D. Klaher, New York, N. Y. Automatic duplicating apparatus	414,378	Nov. 5	289	73	49	796
Davis, George H., Washington, D. C., assignor to A. D. Klaher, New York, N. Y. Adhesive paper to be used for perforating, &c.	416,721	Dec. 10	859		49	1547
Davis, Henry C., Terre Haute, Ind. Hydrocarbon-burner	413,649	Oct. 29	2766	718	49	569
Davis, Hezron R., Lowell, Mass. Miter-box	415,940	Nov. 26	2723	712	49	1293
Davis, Isaac H., Boston, Mass. Mechanical stoker	412,241	Oct. 8	673	178	49	140
Davis, John O., Hartford, Conn. Pump	412,480	Oct. 8	1027	267	49	208
Davis, John S., Toledo, Ohio. Grain-binder	416,577	Dec. 3	640	174	49	1497
Davis, John S., Toledo, assignor to A. E. Sumner, Cleveland, Ohio. Band-securing mechanism for grain-binders	412,914	Oct. 15	1657	435	49	337
Davis, John S., Toledo, assignor to A. E. Sumner, Cleveland, Ohio. Grain-binding harvester	417,473	Dec. 17	1961	523	49	1773
Davis, John S., assignor of one-half to D. S. Troy, Montgomery, Ala. Seeder and planter	413,613	Oct. 22	2712	704	49	548
Davis, John W., et al. (See Gadsbury, Harvey O., assignor.)						
Davis, Joseph, Altoona, Pa. Machine for milling the valve-ports of engines	414,756	Nov. 12	880	228	49	921
Davis, Joseph A., (See Blanchard, Virgil W., assignor.)						
Davis, Miles L., Lancaster, Pa. Hospital for patients with infections or contagious diseases	413,300	Oct. 22	2554	669	49	476
Davis, Moses M., (See Fitch, Lauren M., assignor.)						
Davis, Spencer E., Horizon, Wis. Cut-off and spout for waste-pipes	416,402	Dec. 3	373	100	49	1443
Davis, William H., H., Oakdale, Mich. Cementing cisterns or wells	411,981	Oct. 1	292	76	49	60
Davis, William J., (See Frazer and Davis.)						
Davis, William R., Bourbon, Ind. Sill for buildings	416,578	Dec. 3	642	174	49	1497
Davis, William W., McAfee, Ky. Gate-hinge	417,234	Dec. 17	1903	435	49	1704
Davis, Zehulon, (See Zehulon, Henry, assignor.)						
Davis, Zehulon, Cleveland, Ohio. Central-draft lamp	415,502	Nov. 19	2949	532	49	1149
Davis, Zehulon, Cleveland, Ohio. Wick-raiser, (Reissue)	11,650	Dec. 24	3018	791	49	1962
Davis, Zehulon, Cleveland, Ohio. Central-draft lamp	418,504	Dec. 31	3554	930	49	2099

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr-g.	Vol.	Page.
Davy Clay Ballast Company. (See Butler, William and H. G., assignors.)						
Davy Clay Ballast Company. (See Davy and Butler, assignors.)						
Davy, R. B., et al. (See Goldman, Isaac S., assignor.)						
Davy, William, and H. G. Butler, Kenosha, Wis., assignors to Davy Clay Ballast Company, of Illinois. Feeding apparatus for use in burning clay to make ballast, &c.	413,361	Oct. 22	2356	610	49	476
Dawes, Alfred. (See Morgan and Dawes.)						
Dawes, Alfred, Chelsea, Mass. Electric-light support	414,798	Nov. 19	941	244	49	934
Dawson, Edward, assignor of one-half to P. N. Staff, Terro Haute, Ind. Vise	412,166	Oct. 1	553	144	49	111
Dawson, Eugene C., Greeley, Colo. Suspending device for electric lamps	416,447	Dec. 3	440	120	49	1478
Dawson, Helmut N., Oak Hill, Kans. Quadruple tin-folder	419,242	Oct. 8	675	118	49	140
Dawson, James, assignor to J. H. Dawson and A. S. Norrish, Harrisburg, Pa. Roller-mill	416,904	Dec. 10	1119	305	49	1509
Dawson, James A., Tiptonville, Tenn. Combined harrow and roller	412,731	Oct. 15	1411	369	49	391
Dawson, John H., et al. (See Dawson, James, assignor.)						
Day, Andrew J., and H. R. Bates, Pittsburg, Pa. Rod-rolling mill	412,915	Oct. 15	1672	437	49	378
Day, Benjamin F., assignor to W. A. Kinison, Philadelphia, Pa. Saw	416,094	Nov. 26	2568	774	49	1342
Day, Edward B. (See Rhodes, Jay B., assignor.)						
Day, William H., and G. Dimmer, West Coles, Isle of Wight, England. Scrubbing-brush	414,379	Nov. 5	290	74	49	796
Dayton Indicator Co. (See Jenne, Charles H., assignor.)						
Dayton Manufacturing Company. (See Kirby, John T., assignor.)						
De Bertram, Louis G. (See De Villepigue and De Bertram.)						
De Bevoise, Charles R. (See De Bevoise, Helen D. and C. R.)						
De Bevoise, Helen D., Long Island City, and C. R. De Bevoise, Flushing, N. Y. Underwaist	414,026	Oct. 29	3326	867	49	684
De Bogny, Progre P., Geneva, assignor to himself and J. H. Lee, Orelia, Fla. Vehicle-wheel	416,095	Nov. 26	2569	774	49	1342
De Graff, John, Dunkerton, assignor to F. H. Sage, Key, Iowa. Sawing-machine	413,301	Oct. 22	2397	621	49	485
De Grange, George E., New Orleans, La. Rail-chair	410,580	Dec. 3	644	175	49	1498
De Groat, George E., Northport, N. Y., and T. F. Farrell, Paterson, N. J. Sand excavator, separator, and conveyor	417,773	Dec. 24	2135	642	49	1671
De Haven, Hugh, Oak Dale, York, Pa. Hatch-hall	417,313	Oct. 17	1721	403	49	1727
De Kahl, Enoch E., Syracuse, N. Y. Latch-bingo	413,208	Oct. 22	2255	585	49	1529
De Kremen, Dio, et al. (See Perry, William, assignor.)						
De la Granja, Edward, et al. (See Collins and Taylor, assignors.)						
De L'Hervilliers, Yictor, et al. (See Mostern, Max, assignor.)						
De Long, Charles F. (See De Long, Frank E., assignor.)						
De Long, Frank E., assignor of one-half to C. F. De Long, Philadelphia, Pa. Hook	411,857	Oct. 1	123	32	49	27
De Paaw, N. T. (See Seefeld and Penn, assignors.)						
De Puy, Clarence E., Jackson, Mich. Protractor	413,497	Oct. 22	2541	617	49	514
De Rochemaure, Count de la Salle, et al. (See Elot, Pierre B., assignor.)						
De Rose, Jules, San Francisco, Cal., assignor to M. Cohn, New Orleans, La. Corn-planer	413,712	Oct. 29	2858	746	49	586
De Rycke, Julee J. J., New York, N. Y. Separator	417,774	Dec. 24	2437	643	49	1672
De Tamble, Henry, assignor of three-fourths to J. Poull, Anrova, and L. Halberstadt, Valpurgue, Ill. Vehicle-tongue tip	413,860	Nov. 26	2571	676	49	1503
De Villepigue, A. Fioran, New York, and L. G. De Bertram, Brooklyn, N. Y. Bolt	417,235	Oct. 17	1694	435	49	1704
De Villepigue, Auguste E. D. F., Paris, France. Apparatus for use in leveling	417,236	Dec. 17	1695	436	49	1705
Dealy, Simon P. (See Phillipy and Dealy.)						
Dean, George, Grand Rapids, Mich. Rubber eraser	413,599	Oct. 22	2693	700	49	544
Dean, George E., Lamelle, Ill. Wheel	411,897	Oct. 1	163	42	49	34
Deane, Charles H., Woodford County, Ky. Pring apparatus	413,176	Oct. 22	2807	538	49	492
Deane, Charles P., Springfield, Mass. Steam-engine	413,711	Oct. 29	2857	746	49	586
Dear, Joseph A., Jorey City, N. J. Mechanism for cutting and feeding paper for printing-machines	414,999	Nov. 5	177	445	49	773
Dearborn, Charles A., New York, N. Y. Sewing-machine stand	413,050	Oct. 29	2708	719	49	569
Dearing, Fred M. (See Chapman and Dearing.)						
Dearman, Samuel D. (See Cloud and Dearman.)						
Dehahn, Michael, St. Louis, Mo. Horse-boot	416,579	Dec. 3	643	174	49	1497
Dechow, William E., Boston, Mass. assignor to Gamewell Fire Alarm Telegraph Company, New York, N. Y. Electric signaling apparatus	413,436	Oct. 22	2450	617	49	497
Dederick, Ezra, Milwaukee, Wis. Car-mover	412,732	Oct. 15	1412	369	49	291
Dederick, Ezra, Milwaukee, Wis. Condenser	412,733	Oct. 15	1415	370	49	292
Dederick, Peter E., Londonville, N. Y. Rolling-press	415,029	Nov. 12	1280	336	49	1660
Delrick, Adam M., et al. (See Hunt, Marshall E., assignor.)						
Delrick, William C., Norwich, N. Y. Combined name-plate and letter-chfite burner for furnaces	417,548	Dec. 17	2109	501	49	1798
Deeds, John B., assignor of one-half to J. C. Watson, Terre Haute, Ind. Hydrocarbon	412,481	Oct. 8	1028	267	49	308
Deeuss, James M. (See Heatman, Arthur H., assignor.)						
Deering, James W., and R. D. Foster, Harwood, Mo. Nut-lock	417,772	Dec. 24	2434	641	49	1671
Deering, William. (See Noyes, La Verne W., assignor.)						
Defiance Machine Works. (See Seymour, Charles, assignor.)						
Degeholm, Edward, Helsingfors, Finland. Car-starter	412,022	Oct. 1	355	92	49	71
Dégremont, Benjamin. (See Schloessing and Dégremont.)						
Dehayes, Marie, Paris, France. Button for sleeves or other articles	413,315	Oct. 22	2282	503	49	465
Deinas, George, et al. (See Huffman, Orlando, assignor.)						
Deinas, Nicholas, et al. (See Huffman, Orlando, assignor.)						
Del Valle, Eliseo, assignor to R. Teichmann, Brooklyn, N. Y. Toy bank and coin-operated game	414,633	Nov. 5	695	181	49	878
Del Valle, Pedro, Mexico, Mexico. Separating metals by amalgamation	416,403	Dec. 3	634	160	49	1443
Delahunt, Joseph P., St. Pittston, Pa. Apparatus for drying or scouring	416,448	Dec. 3	441	120	49	1458
Delany, John L., Tyler, Tex. Detachable and adjustable roller	417,708	Dec. 24	2533	616	49	1851
Delany, Patrick B., New York, N. Y. Binding-post	417,269	Oct. 1	21	8	49	8
Delany, Patrick B., New York, N. Y. Galvanic battery	416,288	Dec. 3	305	54	49	1408
Delaware Chemical Company. (See Kirby, John T., assignor.)						
Delay, James, Kansas City, Mo. Appliance for teaching penmanship	417,814	Dec. 24	2500	659	49	1823
Dell, John, St. Louis, Mo. Underground electric conduit	414,300	Nov. 5	179	45	49	773
Deming, Henry W., assignor of one-half to S. P. Williams, Waterbury, Conn. Paper box	417,992	Dec. 24	2704	729	49	1905
Deming, Henry W., assignor of one-half to S. P. Williams, Waterbury, Conn. Paper box	415,858	Nov. 26	2588	676	49	1203
Denome, William, and A. Dierkes, Chicago, Ill. Machine for saving front strips for decks	415,859	Nov. 26	2590	676	49	1203
Dempsey, William L., Warsaw, Mo. Sash-holder	417,769	Dec. 24	2536	617	49	1852
Denuth, William, New York, N. Y. Absorbent cartridge for pipe-stems	412,292	Oct. 22	2359	611	49	477
Deniger, Joseph H., assignor to himself, S. B. Tomlinson, and J. T. Logan, Bridgeport, Conn. Vehicle-spring	413,036	Oct. 15	1945	483	49	373
	416,069	Dec. 3	780	213	49	1505

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	De'g.	Vol.	Page.
Denison, Sylvester P., Brooklyn, N. Y., assignor to G. R. Thompson, Philadelphia, Pa. Coupling-box for electrical conduits.....	413,133	Oct. 15	1992	519	49	401
Denison, Sylvester P., Brooklyn, N. Y., assignor to G. R. Thompson, Philadelphia, Pa. Making lateral connections in underground cables.....	413,134	Oct. 15	1993	520	49	402
Denison, William A., New Haven, Conn. Sprinkler.....	414,562	Nov. 5	401	125	49	840
Denn, Clayton, Philadelphia, Pa. Warp plating machine.....	412,449	Oct. 8	1029	268	49	220
Dennett, Herbert E., Boston, Mass. Food compound.....	417,710	Dec. 24	2338		49	1852
Denninger, Frank, New York, N. Y. Piano-case.....	416,581	Dec. 3	645	175	49	1498
Dennis, Andrew J., Franklin, assignor to A. Dahlgren, Nashville, Tenn. Snap-hook.....	413,135	Oct. 15	1994	520	49	400
Dennis, James, Newington, Conn. Rack for drying brick.....	415,497	Nov. 19	1882	490	49	1115
Denny, Edward B., Newark, N. J. Apparatus for mixing gas and air.....	416,776	Dec. 10	928	251	49	1560
Denzer, George W., Kelley's Island, Ohio. Injector-burner.....	416,670	Dec. 3	781	214	49	1525
Deo, George and E., North Branch, Mich. Stump-extracting apparatus.....	417,711	Dec. 24	2338	617	49	1852
Depay, Emile. (See Ray and Depay.)						
Dernigny, Paul L., New York, N. Y. Cooler.....	415,901	Nov. 36	3649	694	49	1377
Dernell, Herman F., Athens, N. Y. Adjustable elevis-arm for ice-plows.....	412,443	Oct. 8	1032	269	49	209
Derr, Fuller S. (See Frymire and Derr.)						
Descaizo, Joseph P., and R. Mortimer, Peters, Cal. Hasp-lock.....	418,505	Dec. 31	3555	900	49	2100
Despain, Theodore, Aigue-Mortes, France. Wedge or key for securing railway-rails in chairs.....	414,678	Nov. 12	1071	275	49	957
Detrick, Jacob S. (See Fisher, Charles W., assignor.)						
Detrick, Jacob S., Baltimore, Md. Machine for planing metal.....	414,503	Nov. 5	494	125	49	840
Detroit Electrical Works. (See Rao, Frank B., assignor.)						
Detroit Machine Screw Works. (See Taylor, Harrison H., assignor.)						
Detroit Paper Novelty Company. (See Ellwell, Fred S., assignor.)						
Deveraux, Edward S., et al. (See Beach, Adam, assignor.)						
Deveraux, Walter B., Glenwood Springs, Colo. Apparatus for separating lead and base bullion from slag.....	417,314	Dec. 17	1732	463	49	1737
Deveraux, Walter B., Glenwood Springs, Colo. Apparatus for separating lead and base bullion from slag.....	417,315	Dec. 17	1735	463	49	1728
Devine, John, Hudson, N. Y. Boiler.....	415,768	Nov. 26	3407	644	49	1239
Devlin, Francis, Bradford, Pa. Piston-packing.....	415,097	Nov. 12	1379	361	49	1019
Devore & Henney Company. (See Bollinger, Michael, assignor.)						
Devoy, James N., St. Louis, Mo. Auger-handle.....	413,037	Oct. 13	1845	483	49	373
Dewees, Levi L. (See Edinger and Dewees.)						
Dewey Corporation. (See Dewey, Mark W., assignor.)						
Dewey, Jesse N., Toledo, Ohio. Canale lubricator.....	414,195	Nov. 5	29	6	49	744
Dewey, Mark W., assignor to Dewey Corporation, Syracuse, N. Y. Electric refrigeration.....	413,136	Oct. 15	1995	520	49	402
Dewey, Mark W., assignor to Dewey Corporation, Syracuse, N. Y. Utilising natural electric energy.....	414,943	Nov. 12	1164	304	49	976
Dewey, Mark W., assignor to Dewey Corporation, Syracuse, N. Y. Electric heating apparatus.....	416,360	Dec. 3	3111	81	49	1430
Dexheimer, Henry, et al. (See Feld and Siebrecht, assignors.)						
Dey, Anthony, et al. (See Beals, Ebenezer, assignor.)						
Deyo, Abraham, and W. S. Schroeder, Chicago, Ill. Car-coupling.....	412,879	Oct. 15	1614	423	49	328
Di Marzio, Vincent, Louisville, Ky. Self-regulating lamp.....	418,113	Dec. 24	2536	775	49	1970
Di Marzio, Vincent, Louisville, Ky. Self-regulating lamp.....	418,114	Dec. 24	2538	776	49	1970
Diamond Match Company. (See Barber, Baughman, and Young, assignors.)						
Diamond Match Company. (See Young, McIntosh, assignor.)						
Diamond State Iron Company. (See Bower, Lewis A., assignor.)						
Dick, R. C., et al. (See Clapp and Low, assignors.)						
Dick, Robert, Buffalo, N. Y. Addressing-machine.....	416,582	Dec. 3	647	175	49	1498
Dickey, George H., and W. Duster, Tarentum, Pa. Plate-carrier.....	417,237	Dec. 17	1608	438	49	1705
Dickey, George W., assignor of one-half to J. Galster, Cincinnati, Ohio. Thill-coupling.....	415,614	Oct. 22	2713	705	49	549
Dickie, James W., Brooklyn, assignor, by mesne assignments, to Reliable Printing and Blank Book Manufacturing Company, New York, N. Y. Combined printing and ruling machine.....	415,902	Nov. 26	3650	694	49	1277
Dickinson, William H. H., et al. (See Jackson, Oliver Y.)						
Dickson, George. (See Frost, George J., assignor.)						
Dickson, Gilbert J., Albany, N. Y. Automatic device for closing elevator-hatchway doors.....	416,583	Dec. 3	649	176	49	1498
Dickson, John. (See Watkins and Dickson.)						
Diefendorf, Warren T., et al., trustees. (See Meyers, Frank B., assignor.)						
Diehl, Philip, Elizabeth, N. J. Electric motor.....	411,982	Oct. 1	293	76	49	60
Diehl, Philip, Elizabeth, N. J. Electric motor.....	411,983	Oct. 1	295	76	49	60
Diehl, Philip, Elizabeth, N. J. Electric fan-motor.....	414,757	Nov. 12	882	229	49	922
Diehl, Philip, Elizabeth, N. J. Electric motor fan.....	414,758	Nov. 12	883	229	49	922
Diehl, Philip, Elizabeth, N. J. Electric fan.....	417,474	Dec. 17	1974	525	49	1775
Dick, Henry W., Baltimore, Md. Christmas-tree holder.....	417,813	Dec. 24	2502	659	49	1883
Dierkes, Alexander. (See Denme and Dierkes.)						
Dieterich, Karl, Munich, Bavaria, Germany. Button.....	417,909	Dec. 24	2635	696	49	1910
Dieterle, Wilhelm, assignor to I. Hauff, Feuerbach, near Stuttgart, Germany. Bating.....	413,615	Oct. 22	2714		49	549
Dieterle, Harry A. B., South Bethlehem, Pa. Steam-bore.....	412,950	Oct. 15	1717	449	49	347
Dietz Company, R. E., et al. (See McArthur, Warren, assignor.)						
Dillmann, Carl, assignor to Siemens & Halske, Berlin, Germany. Regulating the tension of the electric current.....	417,668	Dec. 17	2270	602	49	1830
Dillme, Jacob E. (See Tindall, and Dills, assignor.)						
Dill, Charles H. (See Smith and Dill.)						
Dill, Thomas C., assignor to himself, T. Y. England, C. S. Walton, and J. W. England, Philadelphia, Pa. Key-seating machine.....	412,025	Oct. 1	357	92	49	72
Dillard, Robert M., assignor of one-half to C. P. Russell, Goodland, Kans. Snap-hook.....	415,030	Nov. 12	1298	336	49	1001
Dillon, John, New York, N. Y. Assistor.....	415,622	Nov. 19	2248	587	49	1188
Dimmer, George. (See Day and Dimmer.)						
Dimmick, Albert M. (See Bailey and Dimmick.)						
Dimock, Ira, New London, Conn. Spinning and twisting machine.....	416,326	Dec. 3	360	68	49	1421
Dinze, William W., Racine, Wis. Elevator.....	414,389	Nov. 5	391	74	49	796
Dinn, Patrick J., Boston, Mass. Electric-light post.....	414,626	Nov. 12	785	204	49	902
Dinneen, Michael J., Lowell, Mass. Circular-knitting machine.....	415,834	Nov. 26	2554	667	49	1256

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Dinsmore, John H. R., Liverpool, county of Lancaster, England. Manufacturing gas.....	413,177	Oct. 22	3068	{ 538 539 }	49	423
Dinsmore, John H. R., Liverpool, county of Lancaster, England. Apparatus for making illuminating gas from coal.....	413,226	Oct. 22	2139	556	49	436
Dion, Léon O., <i>et al.</i> (See Strickler, John D., assignor.).....	412,243	Oct. 8	676	179	49	141
Disman, Joseph, assignor of two-thirds to J. M. Dando and B. Pickering, Dayton, Ohio. Baling-press.....	412,167	Oct. 1	555	145	49	112
Dias, Albert B., Brooklyn, N. Y. Caster.....	412,484	Oct. 8	1033	269	49	309
Dias, Charles J. (See Kennedy and Dias.).....						
Diaston & Sons, Henry. (See Diaston, Thomas S., assignor.).....						
Diaston, Thomas S., assignor to H. Diaston & Sons, (incorporated,) Philadelphia, Pa. De- vice for inserting saw-teeth.....	412,924	Oct. 1	359	93	49	72
Distin, Henry J., Philadelphia, Pa. Month-piece for musical instruments.....	417,413	Dec. 17	1876	502	49	1755
Dittman, Catharine M., <i>et al.</i> , administrators. (See Dittman, Joseph F.).....						
Dittman, Henry, <i>et al.</i> , administrators. (See Dittman, Joseph F.).....						
Dittman, Joseph F., deceased, C. M. and H. Dittman, Pittsburg, Pa., administrators. Rock-drill.....	417,004	Dec. 10	1257	{ 344 345 346 }	49	1629
Dittmann, Carl F. L., Altona, Germany. Bathing apparatus.....	412,244	Oct. 8	677	180	49	144
Ditto, Nelson J., Washington, D. C. Gas governor and pressure-regulator.....	416,722	Dec. 10	860	230	49	1547
Dixon, George H., Denver, Colo. Clothes-drier.....	418,279	Dec. 31	3212	840	49	2929
Dixon, Theron S. E., Hyde Park, Ill. Air-brake.....	412,168	Oct. 1	556	{ 145 146 147 }	49	112
Dixon, Theron S. E., Chicago, Ill. Car-brake.....	414,108	Oct. 29	3443	896	49	709
Dixon, Theron S. E., Chicago, Ill. Air-brake.....	418,506	Dec. 31	3556	931	49	2100
Doane, William H., Cincinnati, Ohio. Endless-bed surface-planing machine.....	417,338	Dec. 17	1607	{ 436 437 }	49	1705
Dohson, James, <i>et al.</i> (See Leach, Heaton, and Bentley, assignors.).....						
Dohson, John, <i>et al.</i> (See Leach, Heaton, and Bentley, assignors.).....						
Dohson, William J. M., Brooklyn, N. Y. Attachment for augers.....	413,316	Oct. 22	2293	594	49	465
Dodd, Willis G., San Francisco, Cal. Steam-hoiler furnace.....	417,475	Dec. 17	1975	529	49	1775
Doddridge, William C., Fitchburg, Mass. Drip-cup for umbrellas.....	417,316	Dec. 17	1728	464	49	1728
Dodds, Alexander, Grand Rapids, Mich. Rubbing-machine.....	418,606	Dec. 31	3718	971	49	3132
Dodge, Charles. (See Humphreys, William F., assignor.).....						
Dodge Manufacturing Company. (See Phillon, George, assignor.).....						
Dodge, Miles B., San Francisco, Cal. Dry-ore concentrator.....	417,476	Dec. 17	1977	527	49	1776
Dodge, Wallace H., Mishawaka, Ind. Pulley.....	412,916	Oct. 15	1674	437	49	338
Dodson, Darien W., Town Line, Pa. Type-writing machine.....	416,257	Dec. 3	153	42, 43	49	1328
Doe, Elmer E., Mount Tom, Mass. Combined scratch and hit game.....	413,178	Oct. 22	2070	539	49	439
Doehring, Carl F. W., Leipzig, Germany. Producing fire-proof coverings for walls and ceilings.....	413,437	Oct. 22	2454		49	97
Doerflinger, William, La Crosse, Wis. Button-fastener.....	417,355	Dec. 17	1796	483	49	1740
Doherty, Charles, Library, Pa. Attachment for thrashing-machines.....	418,312	Dec. 31	3268	653	49	2041
Doherty, Daniel E., <i>et al.</i> (See Brown, Perry, assignor.).....						
Doherty, Patrick W., Boston, Mass. Operating mechanism for valves of water-closet or other tanks.....	411,888	Oct. 1	164	42, 43	49	34
Doherty, Patrick W., Boston, Mass. Operating mechanism for valves of water-closet or other tanks.....	411,889	Oct. 1	167	43	49	34
Doherty, Patrick W., Boston, Mass. Operating mechanism for valves of water-closet or other tanks.....	411,890	Oct. 1	167	43	49	34
Doherty, William, Clinton, Ontario, Canada. Organ-pedal.....	417,356	Dec. 17	1797	484	49	1740
Doleon, James B. (See Patmore, John S., assignor.).....	414,504	Nov. 5	496	126	49	841
Dom, Alexander, Mount Healthy, assignor of one-fourth to O. M. Hill, Cincinnati, Ohio. Can-id holder.....	416,096	Nov. 26	2070	774	49	1342
Domier, Albert, and O. C. Hagemann, London, England, assignors to J. S. Kirk & Co., Chicago, Ill. Purifying salt recovered from spent soap-lyes.....	413,616	Oct. 22	2715	705	49	549
Domier, Albert, and O. C. Hagemann, London, England, assignors to J. S. Kirk & Co., Chicago, Ill. Apparatus for treating soap-lyes.....	413,617	Oct. 22	2716	705	49	549
Domier, Albert, and O. C. Hagemann, London, England, assignors to J. S. Kirk & Co., Chicago, Ill. Apparatus for treating soap-lyes.....	413,618	Oct. 22	2717	705	49	549
Domier, Albert, and O. C. Hagemann, London, England, assignors to J. S. Kirk & Co., Chicago, Ill. Recovering glycerine from spent soap-lyes.....	413,619	Oct. 22	2718		49	550
Don, Alfred, and J. Sands, Sydney, New South Wales. Furnace.....	411,964	Oct. 1	297		49	61
Donald, Bernard, Yonkers, N. Y. Pipe and nut wrench.....	414,799	Nov. 12	943	244	49	934
Donaldson, Richard J., <i>et al.</i> (See Huppert, William, assignor.).....						
Donaldson, Walter, Washington, D. C., assignor to W. H. Wilder, Gardner, Mass. Wick- raiser.....	413,408	Nov. 19	1884	491	49	1115
Donley, Oscar H., San José, Cal. Windmill.....	417,549	Dec. 17	2109	561	49	1798
Donlon, Joseph, <i>et al.</i> (See Villars, W. H., assignor.).....						
Donner, Hermann. (See Seyfert and Donner.).....						
Donnersberger, Joseph. (See Dumais, Jean B. Z., assignor.).....						
Donovan, Daniel, and J. Geisenheimer, New York, N. Y. Switch for cable railways.....	416,449	Dec. 3	442	120	49	1459
Doodlette, George W., assignor of one-half to L. A. Simmons, Kansas City, Mo. Cultivator or plow.....	415,308	Nov. 19	1737	452	49	1083
Dopp, Henry W., deceased, Buffalo, N. Y.; M. J. Stark and W. H. Dopp executors. Steam stamping-press.....	414,687	Nov. 19	786	204	49	903
Dopp, William H., <i>et al.</i> , executors. (See Dopp, Henry W.).....						
Döring, Emil, and F. A. Siebert, Weistrop, Saxony, Germany. Bicycle.....	417,550	Dec. 17	2110	561	49	1799
Dorman, William S., Baltimore, Md. Wood-screw machine.....	416,584	Dec. 3	650	{ 116 117 }	49	1499
Dorr, Franklin, Baltimore, Md. Treating cereals.....	412,951	Oct. 15	1718		49	348
Doty, H. Walter, <i>et al.</i> (See Walters, Jasper M., assignor.).....						
Doud, Benson, Chili, Ind. Wire-tightener.....	417,993	Dec. 24	2764	739	49	1935
Dougherty, William, assignor of one-half to J. P. Feeley, Chester, Pa. Filter and heater for steam-boilers.....	417,712	Dec. 24	2739	{ 617 618 }	49	1853
Doughty, Ralph O., <i>et al.</i> (See Huppert, William, assignor.).....						
Douglas Brothers & Mower. (See Mower, Edward B., assignor.).....	412,245	Oct. 8	678	180	49	141
Douglas, William H., Stourbridge, county of Stafford, England. Electric meter.....	413,038	Oct. 15	1847	{ 453 454 }	49	373
Douglass, Adolph J., Dion, N. Y. Crayon-rack for blackboards.....	412,075	Oct. 1	439	111	49	86
Douglass, George M., Benedict, Nebr. Fermentation lock.....	414,381	Nov. 5	293	75	49	797

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Dow, John, Pontiac, R. I. Rope-clamp.....	418,555	Dec. 31	3638	951	49	2116
Dow, Lorenzo, Boston, Mass., assignor to American Type Setter Company, Portland, Me. Type-setting machine.....	412,606	Oct. 8	1212	318	49	244
Dow, Lorenzo, Boston, Mass., assignor to American Type Setter Company, Portland, Me. Type-setting machine.....	412,714	Oct. 8	1382	360	49	278
Dow, William C., Fresno, Cal. Book-press.....	417,860	Dec. 24	2567	676	49	1886
Dowd, Daniel, Portland, Oreg. Threshold.....	414,382	Nov. 5	295	75	49	797
Dowe, Arthur W., assignor of one-half to W. G. Kifenberg, San Francisco, Cal. Wave-power.....	415,812	Nov. 26	2921	658	49	1250
Dove, Percy E., Richmond, Va. Printer's chase-transportation case.....	416,507	Dec. 31	3565	931	49	2102
Dowling, John, assignor to Wilkes-Barré Self Closing Hydrant Company (limited), Wilkes-Barré, Pa. Hydrant.....	417,633	Dec. 17	2926	592	49	1822
Dowling, Robert H., assignor of two-thirds to C. and C. H. Follett, Newark, Ohio. Car-coupling.....	414,146	Oct. 29	3497	908	49	730
Dowling, Robert H., assignor of two-thirds to C. and C. H. Follett, Newark, Ohio. Car-coupling.....	415,623	Nov. 19	2949	587	49	1189
Downs, Allison O., Charlevoix, Mich. Tricycle.....	411,700	Oct. 1	34	8	49	8
Downard, Andrew, assignor to Eureka Mower Company, Utica, N. Y. Harrow.....	413,498	Oct. 22	2542	638	49	514
Downard, Andrew, assignor to Eureka Mower Company, Utica, N. Y. Harrow.....	413,499	Oct. 22	2543	638	49	514
Doyle, John. (See Morrissey and Doyle.)						
Drader, Joseph, and A. B. McKay, London, Ontario, Canada; said McKay assignor to said Drader. Cultivator-tooth.....	417,775	Dec. 24	2479	643	49	1872
Drahos, Ottilie, Milwaukee, Wis. Bed-pan.....	412,734	Oct. 15	1416	370	49	292
Drake, Francis J., Belleville, Ontario, Canada. Shingle-machine.....	415,098	Nov. 12	1386	392	49	1020
Drake, Mahlon S., Newark, N. J. Lamp.....	417,551	Dec. 17	2111	561	49	1799
Drake, William H., Chicago, Ill. Compound fire-proof beam.....	412,485	Oct. 8	1034	269	49	249
Drake, William H., Hackettstown, N. J. Apparatus for heating and ventilating houses.....	412,706	Nov. 26	2575	619	49	1221
Draper, Rufus H., Minneapolis, Minn. Temperature-regulator.....	413,775	Oct. 29	2947	708	49	603
Draper & Sons, George. (See Draper, William F., assignor.)						
Draper & Sons, George. (See Roper, Charles F., assignor.)						
Draper & Sons, George. (See Wood, Charles W., assignor.)						
Draper, William F., assignor to G. Draper & Sons, Hopedale, Mass. Support for spinning-spindles.....	412,169	Oct. 1	567	148	49	114
Draper, William F., assignor to G. Draper & Sons, Hopedale, Mass. Support for spinning-spindles.....	412,170	Oct. 1	568	148	49	114
Draper, William F., Hopedale, assignor to Sawyer Spindle Company, Boston, Mass. Support for spinning-spindles.....	412,171	Oct. 1	569	148	49	114
Drawbaugh, Daniel, Eberly's Mills, assignor of two-thirds to J. A. Herman, Harrisburg, Pa. and M. Marx, Brooklyn, N. Y. Breeding-machine.....	412,369	Oct. 8	803	225	49	175
Dreeland, Peter J., New York, N. Y. Bolt.....	414,383	Nov. 5	295	75	49	797
Drengson, Andrew, Thompson, N. D. Car-coupling.....	415,449	Nov. 19	1932	507	49	1129
Dreshach, Clifford R. (See Grove, William H., assignor.)						
Dreshach, Joseph F. (See Smith and Dreshach.)						
Drew, John G., Lynn, Mass. Hacking mixture.....	417,910	Dec. 24	2636	619	49	1910
Drew, Walter J., assignor to Bissell Carpet Sweeper Company, Grand Rapids, Mich. Carpet-sweeper.....	415,903	Nov. 26	2654	696	49	1278
Drew, William E., et al. (See Choat, Otis W., assignor.)	412,280	Dec. 31	3212	840	49	2029
Drewitt, William H., London, England, assignor to Spratt's Patent, (America), (limited), New York, N. Y. Pen for exhibiting poultry.....	415,769	Nov. 26	2467	644	49	1239
Dreier, Joseph, assignor of one-third to V. F. P. and L. Bohn, New Orleans, La. Paint-harner.....	418,171	Dec. 31	3058	802	49	1998
Dreyer, Wilhelm, Frankfort-on-the-Main, Prussia, Germany. Electro-magnetic type-setting machine.....	418,664	Dec. 31	3805	992	49	2149
Driggs, Alfred H., et al. (See Best and Woodward, assignors.)						
Driggs, William W., et al. (See Whalen, Case, and Gardner, assignors.)						
Drinkwater, Benjamin, Richmond, county of Surrey, England. Cordor for sewing-machines.....	416,215	Dec. 3	94	27	49	13-7
Driscoll, William, Brockville, Ontario, Canada. Sash-fastener.....	413,849	Oct. 29	3045	764	49	623
Driscoll, William, Brockville, Ontario, assignor to J. H. Connor, Ottawa, Canada. Measuring-rod.....	413,930	Oct. 29	3176	890	49	653
Drosten, Frederick W., St. Louis, Mo. Paper-cutter. (Reissue).....	11,041	Nov. 19	2350	613	49	1309
Drosten, Frederick W., St. Louis, Mo. Paper-cutter. (Reissue).....	11,042	Nov. 19	2351	613	49	1309
Drown, Frederick E., Pawtucket, R. I. Bleaching-ket.....	415,191	Nov. 19	1537	401	49	1053
Duba, Roberts M., Dequoin, Ill. Car-coupling.....	414,298	Nov. 12	1100	283	49	963
Do Bois, Howard M., Philadelphia, Pa. Vehicle-wheel tire.....	411,791	Oct. 1	36	9	49	9
Do Bois, Howard M., Philadelphia, Pa. Tire for vehicle-wheels.....	412,699	Oct. 8	1354	352	49	273
Duane, Russell, Philadelphia, Pa. Strip or piece for building toy girders, bridges, &c.....	413,651	Oct. 29	2769	719	49	570
Duckworth, David, New Island, Wis. Portable pen for animals.....	418,313	Dec. 31	3269	853	49	2041
Dudley, George D. (See White and Dudley.)	414,384	Nov. 5	296	76	49	798
Duffy, J. P., et al. (See Cooley, William H., assignor.)						
Duffy, William H. (See Chanchers, Henry J., assignor.)						
Duffy, Allen W., Bentonville, Ark. Church.....	415,624	Nov. 19	2251	587	49	1189
Duffy, Brannock T. (See Duffy, John S., B. T. W. O., and C. C.)						
Duffy, Charlie C. (See Duffy, John S., B. T. W. O., and C. C.)						
Duffy, John S., B. T. W. O., and C. C., Moorehead, Neb. Rotary grain-meter.....	412,076	Oct. 1	430	112	49	86
Duffy, Owen E. (See Kester, Jesse V., assignor.)						
Duffy, William O. (See Duffy, John S., B. T. W. O., and C. C.)						
Dugan, Thomas, Greenville, N. H. Treating lamp-wicks.....	412,607	Oct. 8	1216	211	49	245
Dugmore, Henry, assignor to himself and S. F. Toyle, Somerville, Mass. Metallic window-casement.....	414,944	Nov. 12	1162	304	49	976
Dull, Hannah L., Philadelphia, Pa. Ash-pail.....	417,216	Dec. 24	2563	659	49	1844
Dunnals, Jean B. Z., assignor of one-half to J. Donnersberger, Chicago, Ill. Car-brake.....	415,398	Nov. 26	2603	725	49	1310
Dunnet, Edward, Auburndale, Mass. Paper-feeding mechanism.....	414,147	Oct. 29	3409	909	49	730
Duckworth, Edward H., et al. (See Gray, Benjamin F., assignor.)						
Dunbar, Henry D., North Hartland, Vt. Brake for locomotives.....	412,500	Oct. 29	2545	638	49	515
Dunbar, Henry D., North Hartland, Vt. Balanced slide-valve.....	414,027	Oct. 29	3327	868	49	694
Dunbar, John, and C. E. Gibbs, assignors to R. Hunt Machine Company, Orange, Mass. Press or composition face rolls for rolling-mills, &c.....	418,367	Dec. 31	3354	875	49	2057
Dunbar, William O., Altoona, Pa. Journal-bearing for car-axes.....	414,301	Nov. 5	180	45	49	773
Dunbar, William O., Altoona, Pa. Journal-bearing for car-axes.....	414,302	Nov. 5	182	46	49	774
Duncan, Charles W., St. Louis, Mo. Car-coupling.....	417,005	Dec. 10	1262	345	49	1028

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr g.	Vol.	Page.
Duncan, James E., Forman, assignor to himself, and M. E. Smith, Harlem, N. D. Wind-mill	415,904	Nov. 26	9656	697	49	1273
Duncan, John H., <i>et al.</i> (See Smith, Henry P., assignor.)						
Duncan, S., <i>et al.</i> (See Richardson, George, assignor.)						
Dundon, Patrick F., San Francisco, Cal. Guard for cable-cars	417,477	Dec. 17	1978	537	49	1776
Dunham, Chauncy, Amor Center, N. Y. Pruning implement	414,974	Nov. 12	1214	316	49	985
Dunham, David A., Palatka, Fla. Pruning-shears guard	413,652	Oct. 29	2770	719	49	570
Dunham, George H., <i>et al.</i> (See Smith, Roswell T., assignor.)						
Dunham, James B., Wenona, Ill. Disinfecting and deodorizing device	414,698	Nov. 12	790	904	49	903
Dunkle, William. (See Galbreath, Dunkle, and Chapman.)						
Dunlap, John L. (See Bauer, Charles V., assignor.)						
Dunlap, William A., Pittsburgh, Pa. Clamp for holding articles to be electroplated	414,860	Nov. 12	1037	267	49	951
Dunn, Albert H., Minersville, Pa. Puzzle	416,258	Dec. 3	159	43	49	1399
Dunn, Isaac, New Brunswick, N. J. Automatic lath-feeder for paper-carriers	416,404	Dec. 3	375	100	49	1444
Dunn, J. Paris, New York, and J. Brady, Brooklyn, assignors, hy mesne assignments, to T. M. Cheesman, New York, N. Y. Apparatus for printing, registering, and delivering passenger transportation-tickets	417,994	Dec. 24	2765	729 730 731	49	1935
Dunn, John J., Jersey City, N. J. Machine for casting sash-weights	416,450	Dec. 3	444	121	49	1459
Dunn, John P., assignor of one-half to T. H. Pitton, Beatrice, Nebr. Corn harvester and busker	415,242	Nov. 19	1620	418	49	1062
Dunning, William B., Geneva, N. Y. Fastening for railway-rails	412,370	Oct. 8	816	419	49	1176
Dunstedter, Jacob, Edwardsville, Ill. Car-wheel	417,996	Dec. 24	2777	732	49	1937
Dunstedter, Jacob, Edwardsville, Ill., assignor to Steel Truss Car Wheel Company, of Illinois. Wheel	417,995	Dec. 24	2778	732	49	1936
Dunton, Frederick W., Worcester, county of Worcester, England, assignor						
Dunton, Orravill L., assignor of one-half to T. F. Sullivan, Brockton, Mass. Divided hub or pulley	412,735	Oct. 15	1416	370	49	2292
Dupuis, Simon, Natiek, Mass. Fishing-rod holder	417,997	Dec. 24	2778	732	49	1937
Durand, Arthur, assignor to Mettalle Railway Tie Company, Washington, D. C. Mechanism for converting railway-rails into flat plates	415,031	Nov. 12	1269	337	49	1001
Durand, Arthur, assignor to Mettalle Railway Tie Company, Washington, D. C. Constructing railway cross-ties of railway-rails	415,032	Nov. 12	1291	338	49	1001
Durand, Eugene L., (See Sarauw, Alfred, assignor.)						
Durkee, George B., assignor to Lyon & Healy, Chicago, Ill. Drum	416,327	Dec. 3	961	68	49	1421
Durning, Joseph S., Emsworth, Pa. Harpoon hay-fork	414,303	Nov. 5	125	46	49	774
Durst, Ernest A. (See Miller, John W., assignor.)						
Duryea, Louis T., <i>et al.</i> , executors. (See Grimm, Paul H.)						
Duryea, William, <i>et al.</i> , executors. (See Grimm, Paul H.)						
Duryea, Wright. (See Grimm, Paul H., assignor.)						
Daryeo, George, Orange, N. J. Manufacturing cement	417,634	Dec. 17	2222		49	1222
Duster, William. (See Dickey and Duster.)						
Dutcher Temple Company. (See Avery, John G., assignor.)						
Dutcher Temple Company. (See Isherwood, Alfred, assignor.)						
Dutcher Temple Company. (See Littlefield, Charles A., assignor.)						
Dutcher Temple Company. (See Piper, Orin, assignor.)						
Dutcher Temple Company. (See Sullivan, Timothy, assignor.)						
Dutton, Samuel T., Worcester, county of Worcester, England. Apparatus for train-signal-ing	416,777	Dec. 10	931	252	49	1561
Dutton, Samuel T., Worcester, county of Worcester, England. Apparatus for locking and unllocking points, signals, &c.	416,778	Dec. 10	934	253	49	1561
Duvai, Selluste, Montreal, Quebec. Canada assignor to F. Roosevelt, New York, N. Y. Combination organ stop-action	416,158	Dec. 3	15	5	49	1379
Duval, William S., Washington, D. C. Store-service apparatus	415,099	Nov. 12	1384	362	49	1021
Dwight, Edward E., Toledo, Ohio. Dumping-car	417,229	Dec. 17	1610	437 438	49	1708
Devinnell, David L., assignor of one-half to Miller Brothers & Mitchell, Montreal, Quebec, Canada. Water-closet	415,961	Nov. 26	2757	720	49	1300
Dyar, George F., Chelmsford, Mass. Drafting apparatus	416,097	Nov. 26	2971	774	49	1343
Dye, Elbridge L. (See Peace and Dye.)						
Dye, Isaac. (See Peace and Dye.)						
Dykes, James L., assignor of one-half to B. F. Harwood, Uniontown, Ala. Plow	415,409	Nov. 19	1285	491	49	1116
Dyrenforth, Philip C., <i>et al.</i> (See Mehren, Jacob F., assignor.)						
Dyrenforth, William H., <i>et al.</i> (See Mehren, Jacob F., assignor.)						
Ebby, Jackson L., West Chester, Pa. Water-motor	414,196	Nov. 5	30	6	49	744
Eager, Frank L., Meriden, Conn. Pneumatic operator for dental pluggers	412,925	Oct. 1	360	93	49	72
Eakins, John H., Detroit, Mich. Car-coupling	413,179	Oct. 22	301	539	49	423
Easley, John L., New York, and M. H. Whalen, Brooklyn, N. Y. Steam-car-heating apparatus	411,985	Oct. 1	300	77, 78	49	61
Eason, Charles H. (See Vanortman, Oliver, assignor.)						
East, Henry, and F. L. Turner, Birmingham, county of Warwick, England. Watch-bow fastener	412,844	Oct. 15	1562	407	49	318
Eastman Dry Plate and Film Company. (See Henry, M., assignor.)						
Eastman Dry Plate and Film Company. (See Taylor, Thomas, assignor.)						
Eastwick, Edward P., Jr., New York, N. Y. Car-coupling	417,006	Dec. 10	1263	345	49	1628
Eastwick, Edward P., Jr., assignor to F. Robert, New York, N. Y. Car-coupling	414,899	Nov. 12	1102	283 284	49	963
Eaton, Archibald I., administrator. (See Eaton, George C.)						
Eaton & Co., J. C. (See Butterfield, George W., assignor.)						
Eaton, George C., deceased, North Bend, Ohio; A. I. Eaton administrator. Cable attachment for dump-cars	416,451	Dec. 3	445	121	49	1459
Eaton, Julius C., Lyndon, Vt. Water-heater	413,039	Oct. 15	1848	484	49	373
Eberhardt, Theophilus C., Cuero, Tex. Engraving-machine	415,450	Nov. 19	1952	507	49	1129
Eberhart, Adolphus. (See Beiger and Eberhart.)						
Eberhart, Noble M., <i>et al.</i> (See Fitz, George W., assignor.)						
Eberle, Christian L., Mount Joy, Pa. Link-motion for engines	416,723	Dec. 10	861	922	49	1547
Ebert, Morris. (See Keeler, George W., assignor.)						
Ecaubert, Frederic. (See Fitz Gerald, Walter H., assignor.)						
Ecaubert, Frederic, Brooklyn, N. Y. Mechanism for the manufacture of watch-lids, &c.	416,831	Dec. 10	1613	274	49	1577
Ecanbert, Frederic, Brooklyn, N. Y. Device for manufacturing watch-cases	416,832	Dec. 10	1615	274	49	1577
Eckersley, John, assignor to W. L. Holland, Preston, county of Lancaster, England. Valve for water-closets	415,033	Nov. 12	1296	338	49	1002

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Eckert, William C. (See Gilham, Eckert, and Gilham.)						
Eddy, Arthur H., Hartford, Conn. Cross-head.	413,927	Oct. 22	2144	557	49	437
Eddy, Charles A. (See Morrell and Eddy.)						
Eddy, Charles W., Ware, Mass. Photographic camera	413,901	Oct. 22	2292	777	49	610
Eddy, John B., assignor of one-half to W. F. Mason, Swansea, Mass. Velocipede.	413,639	Oct. 22	2747	712	49	557
Edelen, William K., Cleveland, Ohio. Pulley	416,833	Dec. 10	1017	325	49	1578
Edelen, William K., assignor to C. S. and J. A. Seaton, Cleveland, Ohio. Upsetting-machine	417,669	Dec. 17	2271	602	49	1830
Edgar, Charles L., trustee. (See Andersen, Johan M., assignor.)						
Edgar, Charles L., trustee. (See Andersen, Albert, assignor.)						
Edgar, Matthew, Jr. (See Withers and Edgar.)						
Edgar, William C., Newark, N. J. Knitted chain	416,259	Dec. 3	160	43	49	1399
Edgcomb, Daniel W., New York, and C. A. Terry, Wilkesboro, assignors to Porter Electric Messenger Company, New York, N. Y. Electric indicator	414,879	Nov. 12	1072	370	49	957
Edgerton, Nathan H., Philadelphia, assignor of one-half to C. M. Rhodes, Wayne, Pa. Engine	416,147	Nov. 26	3060	794	49	1339
Edison Machine Works. (See Phillips, William A., assignor.)						
Edison, Thomas A., Llewellyn Park, N. J. Phonogram-blank	414,759	Nov. 12	824	230	49	922
Edison, Thomas A., Llewellyn Park, N. J. Phonograph	414,760	Nov. 12	886	230	49	922
Edison, Thomas A., Llewellyn Park, N. J. Phonogram-blank	414,761	Nov. 12	887	230	49	923
Edminster, Charles P., Tiskilwa, Ill. Tank-heater	418,900	Nov. 12	944	244	49	934
Edmonds, Frank, and R. Engberg, assignors of one-third to A. Anderson, Alexandria, Minn. Car-coupling	418,508	Dec. 31	3537	932	49	2162
Edwards, Albert, Brooklyn, assignor to Adhesive Gimp Company, (limited,) New York, N. Y. Gimp-preparator	414,689	Nov. 12	791	295	49	904
Edwards, Archer, and T. Griffin, London, England. Adjustable chair	414,491	Nov. 12	945	245	49	934
Edwards, Arthur W., Shingle Springs, Cal. Gate	417,861	Dec. 24	2569	670	49	1896
Edwards, Edward P. (See McElroy, Lewis, assignor.)						
Edwards, George, Thornton Heath, England. Expanding apparatus for fire-escapes	415,067	Nov. 19	2305	691	49	1200
Edwards, George M., London, England. Metal lath	412,917	Oct. 15	1675	437	49	339
Edwards, Robert M., San Francisco, Cal. Fender-guard attached to cars	413,040	Oct. 15	1249	481	49	374
Edwards, William J. (See Chapin and Edwards.)						
En, John, Amherst, Wis. Device for sharpening plow-points	412,488	Oct. 8	1035	269	49	210
Enfinger, August, and L. L. Dewese, Canton, Ohio. Die-stock	413,317	Oct. 22	2284	594	49	465
Egan Company. (See Bugbee, George W., assignor.)						
Egan Company. (See Bugbee and Leman, assignors.)						
Egan, James W., Philadelphia, Pa. Refrigerator	417,414	Dec. 17	1766	503	49	1755
Egbert, Caroline M., Westfield, Pa. Compound for artificial stone	414,325	Nov. 5	298		49	708
Ege, Alexander H. (See Richardson, John T., assignor.)						
Ege, Frederick, Bridgeport, Conn., assignor to Beasley Supply Company, (limited,) Philadelphia, Pa. Indicator lock	415,358	Nov. 19	1815	472	49	1101
EGge, Frederick, assignor to Smith & Egge Manufacturing Company, Bridgeport, Conn. Sheet-metal chain	417,007	Dec. 10	1265	346	49	1629
Egge, Frederick, assignor to Smith & Egge Manufacturing Company, Bridgeport, Conn. Lock	417,008	Dec. 10	1266	346	49	1629
Egger, Jeff. D., Aberdeen, Miss. Saddle-hags	415,301	Oct. 22	2547	658	49	515
Eggers, Anton C., New York, assignor to Ideal Rubber Company, Brooklyn, N. Y. Rubber syringe	411,792	Oct. 1	27	9	49	9
Eggers, Anton C., New York, assignor to Ideal Rubber Company, Brooklyn, N. Y. Nursing-bottle nipple	411,793	Oct. 1	28	9	49	9
Eggers, Anton C., New York, assignor to Ideal Rubber Company, Brooklyn, N. Y. Nursing-bottle nipple	411,794	Oct. 1	29	9	49	9
Eggers, Anton C., New York, assignor to Ideal Rubber Company, Brooklyn, N. Y. Water-bottle stopper	411,795	Oct. 1	29	10	49	9
Eggers, Anton C., New York, assignor to Ideal Rubber Company, Brooklyn, N. Y. Fountain-syringe	411,954	Oct. 1	259	67	49	52
Eggers, Frank F., San Francisco, Cal. Manufacturing battery-zincs	413,438	Oct. 22	2454		49	497
Ehlesta, Carl J., assignor to Colt's Patent Fire Arms Manufacturing Company, Hartford, Conn. Breech-loading fire-arm	415,451	Nov. 19	1954	508	49	1129
Ehli, Julius, Liege, Belgium, assignor of one-fourth to A. Schoverling, New York, N. Y. Lamp-wick	412,736	Oct. 15	1417		49	292
Ehrlich, Andreas A., Leipzig, Germany. Preparing cane reeds for weaving	412,737	Oct. 15	1418	370	49	292
Ehrlich, Leo, assignor to American Roll Paper Company, St. Louis, Mo. Roll-paper holder and cutter. (Reissue.)	11,043	Nov. 19	2332	613	49	1209
Eichmeyer, Joseph C., assignor of nine-tenths to F. J. Callanen, J. R. Swan, and A. H. Palmer, Uden, N. Y. Telephone-transmitter	417,069	Dec. 10	1367	346	49	1629
Eicke, Louis. (See King, Charles, assignor.)						
Eickemeyer, Rudolf, Yonkers, N. Y. Dynamo-electric machine	413,337	Oct. 22	2312	600	49	470
Eickemeyer, Rudolf, Yonkers, N. Y. Magnetic gage for testing the magnetic conductivity of metals	413,338	Oct. 22	2315	601	49	470
Eickemeyer, Rudolf, Yonkers, N. Y. Secondary battery	413,339	Oct. 22	2318	602	49	470
Eickemeyer, Rudolf, Yonkers, N. Y. Dynamo-electric machine	413,363	Oct. 22	2360	611	49	477
Eickeshoff, John H., Cincinnati, Ohio, assignor, by mesne assignments, to M. Gottfried, Chicago, Ill. Malt-tub mechanism	415,243	Nov. 19	1623	419	49	1066
Eichnie, George D., New York, N. Y. Shirt	414,041	Oct. 15	1850	484	49	374
Eichnie, George D., New York, N. Y. Shirt	414,197	Nov. 5	32	7	49	744
Eichnie, George D., New York, N. Y. Sleeve for shirt	414,198	Nov. 5	32	7	49	744
Eichnie, George D., New York, N. Y. Shirt	414,199	Nov. 5	33	7	49	745
Eichnie, George D., New York, N. Y. Shirt	415,905	Nov. 26	2657	697	49	1278
Eichnie, George D., New York, N. Y. Shirt	415,906	Nov. 26	2658	697	49	1279
Eilers, Joseph H. (See Rakes and Eilers.)						
Elkhon, Catharine, et al. (See McCarty, William F. M., assignor.)						
Ekman, Otto W., Moline, Ill. Can-opener	417,010	Dec. 10	1268	346	49	1629
Ekstrom, Andrew W., and J. F. Galvin, Worcester, Mass. Printer's chase	417,478	Dec. 17	1799	528	49	1778
Elam, William E., R. S. Thomas, D. H. Crawford, and S. W. Hardwick, Dallas, Tex.; said Crawford assignor to said Elam, Thomas, and Hardwick. Apparatus for handling and cleaning seed-cotton	414,762	Nov. 12	887	230	49	923
Elam, William E., R. S. Thomas, and S. W. Hardwick, Dallas, Tex. Apparatus for cleaning and handling seed-cotton	415,861	Nov. 26	2592	677	49	1263

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Div.	Vol.	Page.
Elbreg, Henry H., Indianapolis, Ind. Surgical chair.....	412,371	Oct. 8	867	236	40	176
Elder, Joseph, Peoria, Ill. System of heating railway-cars.....	412,907	Nov. 26	2659	697	49	1279
Eldred, Benjamin B., and K. B. Rhehm, Laramie City, Wyo. Ter.; said Rhehm assignor to said Eldred. Lubricator.....	412,077	Oct. 1	431	112	40	87
Eldridge, Francis H., Philadelphia, Pa. Handle.....	414,690	Nov. 12	793	205	49	904
Eldridge, George W. (See Nickerson, Hiram B., assignor.)						
Electric Car Company of America. (See Hunter, Rudolph M., assignor.)						
Electric Cutlery Company. (See Tower, Lewis C., assignor.)						
Electric Exercising Machine Company. (See Robinson, Edward W., assignor.)						
Electric Storage Battery Company. (See Payen, Clément, assignor.)						
Electric Storage Battery Company. (See Shapleigh, Waldron, assignor.)						
Electric Storage Battery Company. (See Smith, Walter F., assignor.)						
Electrical Accumulator Company. (See Swan, Joseph W., assignor.) (Reissue)						
Electrical Supply Company. (See Sperry, Elmer A., assignor.)						
Eiger, William D. (See Campbell, Andrew, assignor.)						
Elgin National Watch Company. (See Hunter, George E., assignor.)						
Elkins, William H., Cambridge, assignor of two-thirds to A. B. Griggs, Boston, Mass., and P. Craig, De Funiak Springs, Fla. Regulator for dynamo-electric machines.....	412,700	Oct. 8	1355	332	49	273
Eliery, Robert L., assignor of one-half to F. E. Fuller, Taunton, Mass. Feeding device for button-making machines.....	412,502	Oct. 22	2548	659	49	515
Ellinwood, Augustus E., Akron, Ohio. Appliance for insulating electric wires.....	416,229	Dec. 3	206	54	49	1409
Ellinwood, Augustus E., assignor to L. Miller, Akron, Ohio. Grain-binding harvester....	415,862	Nov. 26	2293	677	49	1364
Elliott, Alvin D. (See Glidden, Elliott, and Fellows.)						
Elliott, Charles D., Wilsonburg, W. Va. Harness.....	412,078	Oct. 1	432	112	49	87
Elliott, Charles P., West Liberty, Iowa. Fastening for stove-pipes.....	414,200	Nov. 5	34	7	49	745
Elliott, Judson A., Cincinnati, Ohio. Steam-pipe coupling.....	417,670	Dec. 17	3274	603	49	1831
Elliott, Sterling, Newton, Mass. Device for transmitting different speeds.....	418,281	Dec. 31	3214	840	49	2029
Ellis, Charles N., New Albany, Ind. Gate-latch.....	411,955	Oct. 1	800	67	49	33
Ellis, Ferrand F., Oneida, assignor to Oneida Community, (limited,) Kenwood, N. Y. Chain-link.....	416,453	Dec. 31	3479	910	49	2083
Ellis, Franklin, San Francisco, Cal. Gas governor.....	416,216	Dec. 3	95	27	49	1387
Ellis, Frederick A., Tabard Works, county of Surrey, England. Making umbrella-runners.....	413,275	Oct. 22	2207	576	49	450
Ellis, George E., Philadelphia, Pa. Knitting machine.....	412,324	Oct. 8	793	206	49	162
Ellis, John, Jersey City, assignor of one-half to W. T. Wallis, East Orange, N. J. Veilicle.	417,713	Dec. 24	2341	618	49	1853
Elmessaer, Emil, assignor to Dahl & Co., Barmen, Germany. Making paracaulidine sulpho-acid.....	415,359	Nov. 19	1815		49	1101
Elson, Jacob, Philadelphia, Pa., assignor to J. Laferity & Son, New York, N. Y. Buckle.	415,164	Nov. 12	1520	392	49	1038
Ertelch, Charles, New York, N. Y. Tap and holder therefor.....	412,922	Oct. 15	1719	449	49	348
Elwell, Fred. S., assignor to Detroit Paper Novelty Company, Detroit, Mich. Machine for making paper vessels.....	416,585	Dec. 3	654	177	49	1499
Elwell, Howard P., Gloucester, Mass. Torpedo-lamelling gear.....	414,386	Nov. 5	299	767	49	798
Elwell, Byron H., et al., trustees of the estate of George Meyer, Frank B., assignor.)						
Ely, Eliza B., Canton, Ohio. Combination-stove.....	413,180	Oct. 22	2972	530	49	423
Ely, George E., assignor to L. T. Riggs, Rochester, N. Y. Push-button.....	412,845	Oct. 15	1563	407	49	319
Emerson, George W., Blakeman, Kans. Reversing-lever for locomotives.....	412,608	Oct. 8	1216	320	49	245
Emerson, John. (See Williams, Ekanah G., assignor.)						
Emerson, Ralph, et al. (See Young, Charles H., assignor.)						
Emery, Abram D., Taunton, Mass. Woven fabric.....	415,138	Nov. 12	1439	376	49	1031
Emery, Abram D., Taunton, Mass. Weaving plain one-ply fabrics.....	415,139	Nov. 12	1440	376	49	1031
Emery, Abram D., Taunton, Mass. Woven fabric.....	415,140	Nov. 12	1449	377	49	1032
Emery, Abram D., Taunton, Mass. Woven fabric.....	415,141	Nov. 12	1450	377	49	1032
Emery, Abram D., Taunton, Mass. Woven fabric.....	415,142	Nov. 12	1452	378	49	1032
Emery, Abram D., Taunton, Mass. Woven fabric.....	415,143	Nov. 12	1454	378	49	1032
Emery, Abram D., Taunton, Mass. Weaving plain one-ply fabrics.....	415,144	Nov. 12	1456	378	49	1033
Emery, Abram D., Taunton, Mass. Weaving two-ply fabrics.....	415,145	Nov. 12	1464	379	49	1033
Emery, Abram D., Taunton, Mass. Weaving two-ply figured fabrics.....	415,146	Nov. 12	1470	381	49	1034
Emery, Abram D., Taunton, Mass. Two-ply woven figured fabric.....	415,147	Nov. 12	1481	382	49	1034
Emery, Abram D., Taunton, Mass. Woven seamless bag.....	415,148	Nov. 12	1483	382	49	1034
Emery, Abram D., Taunton, Mass. Weaving seamless bags.....	415,149	Nov. 12	1485	384	49	1035
Emery, Abram D., Taunton, Mass. Woven seamless bag.....	415,150	Nov. 12	1488	384	49	1035
Emery, Abram D., Taunton, Mass. Woven seamless side pocket.....	415,151	Nov. 12	1489	384	49	1035
Emery, Abram D., Taunton, Mass. Woven seamless hip-pocket.....	415,152	Nov. 12	1491	384	49	1035
Emery, Abram D., Taunton, Mass. Woven seamless bag.....	415,153	Nov. 12	1492	385	49	1035
Emery, Abram D., Taunton, Mass. Woven seamless bag.....	415,154	Nov. 12	1493	385	49	1035
Emery, Abram D., Taunton, Mass. Weaving seamless bags.....	415,155	Nov. 12	1494	385	49	1036
Emery, Abram D., Taunton, Mass. Weaving seamless bags.....	415,156	Nov. 12	1498	387	49	1036
Emery, Abram D., Taunton, Mass. Weaving seamless bags.....	415,157	Nov. 12	1502	387	49	1036
Emery, Abram D., Taunton, Mass. Weaving seamless hip-pockets.....	415,158	Nov. 12	1505	389	49	1036
Emery, Abram D., Taunton, Mass. Weaving seamless side pockets.....	415,159	Nov. 12	1509	389	49	1037
Emery, Charles H. and J. P., Hyde Park, assignors of one-third to D. B. Carmichael, Lake, Ill. Grain-car-door fastener.....	415,668	Nov. 19	2209	603	49	1200
Emery, James P. (See Emery, Charles H. and J. P.)						
Emmens, Stephen H., London, England. Primer.....	411,796	Oct. 1	30	10	49	9
Emmens, Stephen H., London, England. Projectile.....	414,387	Nov. 5	304	77	49	800
Emmens, Stephen H., London, England. Projectile.....	414,388	Nov. 5	305	78	49	800
Emmens, Stephen H., London, England. Shell.....	414,389	Nov. 5	306	78	49	800
Emmens, Stephen H., London, England. Shell for ordnance.....	415,707	Nov. 26	2376	620	49	1221
Emmens, Stephen H., Harrison, N. Y. Disappearing gun-carriage.....	415,708	Nov. 26	2377	620	49	1222
Emmet, William L., Wichita, Kans. Trolley.....	417,996	Dec. 24	2779	733	49	1937

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Deq.	Vol	Page.
Emmons, Arthur B. (See Kensett, James W., assignor.)						
Engberg, Richard. (See Edmonds and Engberg.)						
Engelberry, Isaac M. (See Voegtline and Bergstrom, assignors.)						
Engelen, Antoine J., Brussels, Belgium, assignor to A. Mullers, Ehrenfeld, Cologne, and C. Maacks, Cologne, Germany. Machine for making type-bars	413,042	Oct. 15	1,552	485	49	374
Engelhardt, Joseph, New York, N. Y. Malt-turning apparatus	412,791	Oct. 8	1,356	353	49	273
Engert, George J., assignor to himself and E. C. Schwingel, Danaville, N. Y. Lath-dog	413,392	Oct. 22	5396	632	49	465
England, James W., et al. (See Dill, Thomas C., assignor.)						
England, Thomas Y., et al. (See Dill, Thomas C., assignor.)						
English, Analdo M., Boston, Mass., assignor to International Fastening Company, Portland, Me. Glove-fastener						
Enholm, Ivar H. (See Enholm, Oscar A., assignor.)						
Enholm, Oscar A., assignor of one-sixth to I. H. Enholm, New York, N. Y. Composition for lining electric-battery jars	413,972	Oct. 8	869	226	49	176
Enholm, Oscar A., assignor of one-sixth to I. H. Enholm, New York, N. Y. Galvanic battery	415,962	Nov. 26	2758	730	49	1301
Ennes, John D., Norfolk, Va. Folding bed	415,963	Nov. 26	2759	721	49	1301
Enoch, Charles S., Cincinnati, Ohio, assignor to Morse, Williams & Co. Elevator-hatchway gate	417,137	Dec. 10	1,497	408	49	1674
Ergang, F. (See Ergang, Richard, assignor.)						
Ergang, Richard, assignor to F. Ergang, Magdeburg, Prussia, Germany. Apparatus for cooling and aerating brewers' worts	417,911	Dec. 24	2637	696	49	1919
Erickson, Charles A., Red Wing, Minn. Press	414,932	Oct. 29	3328	968	49	664
Erickson, Peter R., Litchfield, Mich. Nut-wrench	415,973	Oct. 8	870	297	49	176
Erickson, John V., Escanaba, Mich., assignor to Pettibone, Mulliken & Company, Chicago, Ill. Discharge apparatus for coal or ore bins	412,374	Oct. 8	871	227	49	177
Erickson, John V., Escanaba, Mich., assignor to Pettibone, Mulliken & Company, Chicago, Ill. Discharge apparatus for coal or ore bins	412,375	Oct. 8	873	227	49	177
Erickson, John V., Escanaba, Mich., assignor to Pettibone, Mulliken & Company, Chicago, Ill. Discharge apparatus for coal or ore bins	412,376	Oct. 8	874	228	49	177
Ertman, Emanuel E., Pullman, Ill. Porcelain cap	417,158	Dec. 10	1,499	408	49	1674
Erwin, Sanford W., Mount Meridian, Ind. Cleaner for fruit-jars, &c	412,918	Oct. 15	1678	437	49	339
Esbach, Henry, assignor to Boston Musical Instrument Manufactory, Boston, Mass. Corn-like	415,625	Nov. 19	2222	588	49	1129
Esché, Robert, Geneva, Switzerland. Apparatus for exhibiting panoramic views and the like	417,671	Dec. 17	2275	603	49	1831
Eschellmann, George. (See Mond and Eschellmann.)						
Espeel, Ferdinand, San Francisco, Cal. Cable-car stopper	416,390	Dec. 3	207	54	49	1409
Essig, Osgia A., Canton, Ohio. Flow	414,304	Nov. 5	1,47	46, 47	49	775
Estabrook, William W., Boston, Mass. Automatic circuit making and breaking mechanism for gas-lighting	417,415	Dec. 17	1875	503	49	1756
Estey, David M. (See Clapp, M. J., assignor.)						
Estey, David M. (See Lingle, William H., assignor.)						
Estey Manufacturing Company, et al. (See Clapp, M. J., assignor.)						
Estill, John F. (See Cunningham, James M., assignor.)						
Ethridge, Alfred. (See Agnir, Hiram, assignor.)						
Ethridge, Frank N., Boston, and C. W. B. Fuller, Malden, assignors to Acme Heel Trimmer Company, Boston, Mass. Heel-trimming machine	412,036	Oct. 1	361	90	49	73
Etzold, Albert J., Detroit, Mich. Grain-separator	412,969	Nov. 26	2330	621	49	1322
Etzold, Thomas J., Rogers, Gate	411,598	Oct. 1	134	32	49	27
Ennison, Charles W., Emerald Grove, Wis. Improvements in a hanging	413,850	Oct. 29	3046	794	49	633
Emphrat, Frederic, San Francisco, Cal. Sight-exhibiting machine	414,764	Nov. 12	892	231	49	922
Eureka Box Company. (See Price, George W., assignor.)						
Eureka Mower Company. (See Downward, Andrew, assignor.)						
Evans, Adeline F., St. John, Cal. Combined flour sieve and scales	413,623	Dec. 20	1513	784	49	616
Evans, Austin C., Springfield, Ohio. Seed-planter	417,159	Dec. 10	1,497	409	49	1675
Evans Company, Thomas. (See Franz, Henry, assignor.)						
Evans, Elmore A., Springfield, Mass. Directory	416,586	Dec. 3	653	177	49	1500
Evans, William M., Amherst, Va. Medicated pop-corn	413,192	Nov. 19	1558	409	49	1653
Everson, Charles H., Plymouth, Mass., assignor to Plymouth Cordage Company, of Massachusetts. The yarn machine	412,880	Oct. 15	1615	432	49	328
Evered, George, Galeana, Ill. Liniment	417,011	Dec. 10	1369	363	49	1629
Evvard, Alfred, Paris, France. Apparatus for automatically lowering articles and check for speed	416,159	Dec. 3	17	6	49	1372
Ewert, Otto, and J. A. Mehling, Cleveland, Ohio. Hydrocarbon-oil burner	417,479	Dec. 17	1940	538	49	1776
Ewing, Calvin, San Francisco, Cal. Collar-stuffing machine	417,532	Dec. 17	2112	562	49	1799
Ewing, Calvin, San Francisco, Cal. Collar-stuffing machine. (Reissue.)	1,052	Dec. 31	3810	993	49	2150
Ewing, F. P. (See Sanders, Julius H., assignor.)						
Ewing, George C., et al. (See Willshire, Frederick R., assignor.)						
Ewing, James D., assignor to Keystone Watch Case Company, Philadelphia, Pa. Watch-case spring	414,802	Nov. 12	946	245	49	934
Excelsior Electric Company. (See Hochhausen, William, assignor.)						
Excelsior Elevator Guard and Hatch Cover Company. (See Fraser, Daniel, assignor.)						
Excelsior Steam Evaporator Company. (See White, Eli, assignor.)						
Exley, Robert, Philadelphia, Pa. Street water-sprinkler	417,714	Dec. 24	2342	618	49	1853
Eynon & Ingersoll. (See Eynon, Thomas, assignor.)						
Eynon, Thomas, assignor to Eynon & Ingersoll, Cleveland, Ohio. Milling-tool	417,776	Dec. 24	2441	643	49	1872
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,765	Nov. 12	894	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,766	Nov. 12	895	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,767	Nov. 12	896	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,768	Nov. 12	897	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,769	Nov. 12	898	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,770	Nov. 12	899	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,771	Nov. 12	900	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,772	Nov. 12	901	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,773	Nov. 12	902	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,774	Nov. 12	903	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,775	Nov. 12	904	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,776	Nov. 12	905	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,777	Nov. 12	906	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,778	Nov. 12	907	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,779	Nov. 12	908	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,780	Nov. 12	909	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,781	Nov. 12	910	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,782	Nov. 12	911	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,783	Nov. 12	912	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,784	Nov. 12	913	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,785	Nov. 12	914	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,786	Nov. 12	915	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,787	Nov. 12	916	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,788	Nov. 12	917	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,789	Nov. 12	918	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,790	Nov. 12	919	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,791	Nov. 12	920	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,792	Nov. 12	921	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,793	Nov. 12	922	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,794	Nov. 12	923	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,795	Nov. 12	924	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,796	Nov. 12	925	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,797	Nov. 12	926	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,798	Nov. 12	927	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,799	Nov. 12	928	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,800	Nov. 12	929	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,801	Nov. 12	930	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,802	Nov. 12	931	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,803	Nov. 12	932	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,804	Nov. 12	933	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,805	Nov. 12	934	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,806	Nov. 12	935	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,807	Nov. 12	936	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,808	Nov. 12	937	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,809	Nov. 12	938	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,810	Nov. 12	939	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,811	Nov. 12	940	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,812	Nov. 12	941	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,813	Nov. 12	942	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,814	Nov. 12	943	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,815	Nov. 12	944	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,816	Nov. 12	945	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,817	Nov. 12	946	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,818	Nov. 12	947	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,819	Nov. 12	948	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,820	Nov. 12	949	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,821	Nov. 12	950	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,822	Nov. 12	951	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,823	Nov. 12	952	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,824	Nov. 12	953	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,825	Nov. 12	954	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,826	Nov. 12	955	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,827	Nov. 12	956	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,828	Nov. 12	957	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,829	Nov. 12	958	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,830	Nov. 12	959	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,831	Nov. 12	960	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,832	Nov. 12	961	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,833	Nov. 12	962	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,834	Nov. 12	963	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,835	Nov. 12	964	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,836	Nov. 12	965	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,837	Nov. 12	966	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,838	Nov. 12	967	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,839	Nov. 12	968	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,840	Nov. 12	969	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,841	Nov. 12	970	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,842	Nov. 12	971	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,843	Nov. 12	972	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,844	Nov. 12	973	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,845	Nov. 12	974	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,846	Nov. 12	975	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,847	Nov. 12	976	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,848	Nov. 12	977	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,849	Nov. 12	978	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,850	Nov. 12	979	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,851	Nov. 12	980	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,852	Nov. 12	981	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,853	Nov. 12	982	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,854	Nov. 12	983	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,855	Nov. 12	984	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,856	Nov. 12	985	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,857	Nov. 12	986	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,858	Nov. 12	987	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,859	Nov. 12	988	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,860	Nov. 12	989	232	49	923
Fairbanks, Frederick C., Nice, France. Necktie-fastener	414,861	Nov. 12	990	232	49	923
Fairbanks, Frederick C., Nice, France						

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr't	Vol.	Page.
Fales, Edward, Philadelphia, Pa. Furnace for steam-boilers.....	415,627	Nov. 19	2254	{ 588 589 }	49	1189
Falls, Frank H. (See Schue, John, assignor.)						
Fanghoner, Albert H., Yonkers, N. Y., assignor, by mesne assignments, to William L. Lins Company, Hartford, Conn. Cop-holder for sewing-machine shuttles.....	413,377	Oct. 8	875	938	49	178
Fanning, Joseph H., Providence, R. I. Chain-bar.....	413,439	Oct. 22	2455	937	49	497
Farbenfabriken, vormals Fr. Bayer & Co. (See Bayer, Friedrich, assignor.)						
Farbenfabriken, vormals Fr. Bayer & Co. (See Ulrich, Moritz, assignor.)						
Farbwerke, vormals Meister, Lucius & Brüning. (See Hermann, Albert, assignor.)						
Farciot, Charles O., assignor of two-thirds to N. W. Spaulding and C. Goodall, San Francisco, Cal. Automatic recording-compass.....	413,256	Oct. 22	2109	565	49	442
Farley, Edward S., and M. R. Strong, Jersey City, N. J. Coal-receptacle.....	412,487	Oct. 8	1036	270	49	310
Farmer, Charles H., New York, N. Y. Buckle.....	418,556	Dec. 31	3639	351	49	2116
Farmer, John R., assignor of one-half to J. J. Lahiv, St. Louis, Mo. Spark-arrester for electric lamps.....	415,698	Nov. 19	2255	589	49	1190
Farmer, Julius M., Cheboygan, Mich. Rotary engine.....	412,079	Oct. 1	433	{ 112 113 }	49	87
Farmer, Little & Co. (See Chase, Edward O., assignor.)						
Farmer, Pleasant E., Laurel Grove, Va. Hanging tobacco.....	413,393	Oct. 22	2399	692	49	485
Farmer, Theodore P., assignor to Lamson & Lash Railway Company, Boston, Mass. Store-service hoist.....	414,032	Oct. 29	3335	809	49	686
Farnham, Isaiah H., Malden, Mass., assignor to New England Telephone and Telegraph Company, of New York. Central-station calling apparatus.....	413,976	Oct. 22	2308	576	49	450
Farnham, Henry. (See Roberts and Farnum.)						
Farra, A. (See Brown, Oliver F., assignor.)						
Farrell, Andrew F., Albany, N. Y. Implement for opening oysters or clams.....	411,797	Oct. 1	31	10	49	10
Farrell, George W., Au Sable Forks, N. Y. Carriage gear.....	417,480	Dec. 17	1092	538	49	1777
Farrell, Henry O., assignor to B. Fitch & Co., New York, N. Y. Mattress.....	414,380	Nov. 5	308	78	49	801
Farrell, John, Haverhill, N. J. Dropped work.....	418,557	Dec. 31	3640	932	49	2117
Farrell, Thomas F. (See De Groat and Farrell.)						
Farwell, Simon, Evanston, Ill. Preparing oranges, &c., for shipment.....	416,334	Dec. 10	1019	275	49	1578
Fassner, Joseph, New York, N. Y. Gage attachment for sewing-machine presser-feet.....	413,043	Oct. 15	1855	496	49	375
Fatie, Henry, Middletown, Ind. Case or corn harvesting machine.....	411,798	Oct. 1	31	10	49	10
Faucheran, Charles, St. Amand sur Sevre, France. Snap-hook.....	413,246	Oct. 8	679	180	49	141
Faulkner, Alfred, Jersey City, N. J., assignor to E. W. Broadbent, New York, N. Y. Plating attachment for sewing-machines.....	411,917	Oct. 1	204	52, 53	49	42
Favre, Leon, New York, N. Y. Decorating watches.....	415,100	Nov. 12	1367		49	1021
Fawcett, Mark, London, county of Middlesex, England. Construction of fire-proof floors.....	415,309	Nov. 19	1785	464	49	1037
Fax, Simon S., Woodstock, Ontario, Canada. Vehicle-gearing.....	412,740	Oct. 15	1421	371	49	295
Fay, Benjamin F., assignor of two-thirds to L. Rassier and E. H. Dunbar, St. Louis, Mo. Smoke-consuming.....	417,160	Dec. 10	1501	409	49	1075
Fay, Thomas J. (See Upham and Fay.)						
Featherstone, Alfred, Chicago, Ill. Velocipede.....	414,505	Nov. 5	497	127	49	841
Feebheimer, Isaac. (See Watson, Andrew J., assignor.)						
Fechter, Henry A., assignor of one-half to M. Smith, New Haven, Conn. Means for ventilating hats.....	418,382	Dec. 31	3215	{ 840 841 }	49	2030
Fee, William R., Cincinnati, Ohio, assignor to Edinburg Pulley Company, Edinburg, Ind. Oil-press.....	418,115	Dec. 24	3959	776	49	1971
Fee, William R., Cincinnati, Ohio, assignor to Edinburg Pulley Company, Edinburg, Ind. Heating and crushing rolls for oil-presses.....	418,116	Dec. 24	3961	777	49	1971
Feeley, James P. (See Dougherty, Thomas, assignor.)						
Feld, John A., New York, and J. Siebrecht, Brooklyn, assignors to said John A. Feld, J. J. Mayer, and H. Dexheimer, New York, N. Y. Carbonic-acid-gas generator.....	414,601	Nov. 12	793	{ 305 306 }	49	904
Feld, Walther, and G. Von Koorse, Charlottenburg, Germany. Making silicium copper.....	414,033	Oct. 29	3336		49	646
Feldman, John F., Cole Camp, Mo. Vehicle-spike.....	416,328	Dec. 3	262	68	49	1421
Fellheimer, August. (See Bray, Morris P., assignor.)						
Fellows, Ernest T. (See Monsanto, Maurice M., assignor.)						
Fellows, Alfred, assignor of one-half to F. M. Oable, Lansing, Kans. Hame-fastener.....	413,931	Oct. 29	3177	830	49	633
Fellows, George E. (See Glidden, Elliott, and Fellows.)						
Felt, Dorr E., assignor to Felt & Tarrant Manufacturing Company, Chicago, Ill. Machine for receipting bills and severing coupons therefrom.....	412,378	Oct. 8	876	{ 928 929 }	49	178
Felt, Hannibal, Gallatin, Tenn. Churn.....	414,506	Nov. 5	498	127	49	841
Felt, Joseph W., Allegheny, N. Y. Oil-saving apparatus for petroleum-wells.....	418,509	Dec. 31	3568	932	49	2103
Felt & Tarrant Manufacturing Company. (See Felt, Dorr E., assignor.)						
Fenner, Edward W., and R. J. Lee, Troy, Pa. Fire-escape.....	414,391	Nov. 5	309	79	49	801
Fenner, George F., New London, Conn. Printing-press.....	416,587	Dec. 3	657	178	49	1500
Ferguson, F. L., et al. (See Newell, George F., assignor.)						
Ferguson, Frank, et al. (See Gefroerer, Henry, assignor.)						
Ferguson, Harry, New York, N. Y. Covering for screw-heads.....	416,329	Dec. 3	263	69	49	1422
Ferguson, James H., et al. (See Gefroerer, Henry, assignor.)						
Ferguson, James E. and J. Chester, Conn. Trip-holder.....	415,770	Nov. 26	2408	674	49	1239
Ferguson, John. (See Ferguson, James E. and J.)						
Ferguson, John H., Albion, Mich. Leaf-holder for hook or music racks.....	416,588	Dec. 3	658	178	49	1500
Ferguson, John M., Charles City, Iowa. Cow-tail holder.....	417,715	Dec. 24	3244	611	49	1814
Ferguson, Wallace H., Grand, Mass., assignor to J. Smith Woolen Machinery Company, Philadelphia, Pa. Feeding mechanism for carding-machines.....	418,558	Dec. 31	3643	{ 928 929 }	49	2157
Ferguson, Sterling P., Readville, Mass. Self-recording rain or snow gage.....	417,357	Dec. 17	1801	485	49	1741
Ferris, George W., Melvin, Ala. Combined seed-planter and fertilizer-distributor.....	416,921	Dec. 3	209	54, 55	49	1409
Ferris, Henry L., assignor to Hunt, Helm & Ferris, Harvard, Ill. Spring-hinge.....	411,926	Oct. 1	261	67	49	33
Ferris, Henry L., assignor to Hunt, Helm & Ferris, Harvard, Ill. Windmill-regulator.....	417,416	Dec. 17	1878	503	49	1736
Ferris, Henry L., assignor to C. E. Hunt, N. B. Helm, and H. L. Ferris, Harvard, Ill. Spring-hinge.....	414,201	Nov. 5	35	8	49	745
Ferry, Charles H. (See Munton, James, assignor.)						
Fessenden, Clarence H., Syracuse, N. Y. Attachment for cigar-boxes.....	412,428	Oct. 8	1037	270	49	310
Fickert, Franz C. H., Schwerdt, Mecklenburg, Germany. Fastening for shoe-soles.....	415,771	Nov. 26	2409	675	49	1240
Fickes, Carty K., Mechanicshurg, Pa. Whiffletree.....	415,193	Nov. 19	1558	401	49	1053
Fied, Benjamin F., assignor to Field Patent Water Purifier Company, Chicago, Ill. Feed-water purifier.....	416,632	Nov. 26	2861	{ 748 749 }	49	1321
Fied, Frederick F., Providence, R. I. Wash-tub.....	410,452	Dec. 3	446	101	49	1459
Field, George B., New York, N. Y. Feed-water purifier.....	412,738	Oct. 15	1418	371	49	292
Field Patent Water Purifier Company. (See Field, Benjamin F., assignor.)						
Field, Wallace L. (See Lawson and Field.)						
Effe, Frank F., and W. V. Biehn, St. Louis, Mo. Hat-guard.....	414,507	Nov. 5	501	127	49	842

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Sec.	Page.	Vol.	Page.
Fildew, Alfred S., St. John's, Mich. Stop-siphon.....	416,217	Dec. 3	96	28	49	1387
Filiprat, Wilfrid, assignor of one-half to C. Chedron and J. Donlon, Chicago, Ill. Trac-						
tionable for draw-bridges.....	416,098	Nov. 26	2974	775	49	1343
Filip, Anton, Cedar Rapids, Iowa. Grain elevator and cleaner.....	411,799	Oct. 1	33	11	49	10
Filley, Giles F., St. Louis, Mo. Heating-stove.....	413,653	Oct. 29	2771	720	49	570
Finch & Co. (See McCutchen, Charles W., assignor.)						
Finch, John M., Crockett, assignor of part to J. R. Cross, San Francisco, G. Riley, Vallejo,						
and F. Miller, Marysville, Cal. Separator.....	412,172	Oct. 1	570	148	49	114
Finckel, Martin L., et al. (See Goodman, Samuel N., assignor.)						
Findley, John G., Wallaceburg, Ontario, Canada. Gage-cock.....	414,034	Nov. 29	3338	870	49	686
Findley, John P., Blanchard, Pa. Book-rest.....	414,392	Oct. 5	310	79	49	801
Finger, Ludwig, St. Louis, Mo. Horse-shoe.....	411,357	Oct. 1	292	38	49	53
Finigan, Thomas, Paterson, N. J. Braiding-machine.....	416,905	Dec. 10	1122	306	49	1529
Fink, John J. B. (See Stover, Cochran C., assignor.)						
Finlay, William G., Lawrence, Mass. Expanding pulley.....	414,506	Nov. 5	502	127	49	842
Finney, Joseph R., National City, Cal., assignor, by mesne assignments of one-half to Over-						
head Conductor Electric Railway Company, Pittsburg, Pa. Electric locomotor.....	415,165	Nov. 12	1521	392	49	1093
Firm, Joseph L., Jersey City, N. J. Rotary printing-machine.....	415,321	Nov. 19	1754	456	49	1032
Firman, Leroy B. (See Adams, Frederick U., assignor.)						
Firth, Algernon F., Brighouse, county of York, England. Loom for weaving pile fabrics.....	413,440	Oct. 22	2476	637	49	497
Fischel, Daniel C., Troy, N. Y., assignor to A. J. Robinson, Boston, Mass. Detachable						
cover for umbrellas or parasols.....	413,110	Oct. 15	1349	.....	49	303
Fischer, Ernest J., Philadelphia, assignor of two-thirds to J. G. Bower and F. H. Miller,						
Watsontown, Pa. Cleaning animal-hair.....	414,861	Nov. 12	1037	268	49	951
Fischer, Frederick J., Detroit, Mich. Machine for cutting glue-stock.....	412,080	Oct. 1	434	.....	49	87
Fischer, John, Louisville, Ky. Threading.....	414,706	Nov. 12	995	232	49	924
Fischer, Victor, Buda Pesth, Austria-Hungary. Truss.....	412,229	Oct. 29	2529	746	49	528
Fish, Myron. (See Bright, Richard A., assignor.)	414,280	Dec. 12	1077	376	49	958
Fish, Samuel H., Hinsdale, assignor of one-half to H. C. Middaugh, Clarendon Hills, Ill.						
Potato-planter.....	414,148	Oct. 29	3504	900	49	721
Fisher, Charles, assignor of one-half to Morawetz & Co., Milwaukee, Wis. Hat-tray.....	415,964	Nov. 26	2760	721	49	1301
Fisher, Charles W., assignor of one-half to J. S. Detrick, Baltimore, Md. Holder for						
swinging scudals.....	414,634	Nov. 5	690	181	49	873
Fisher, Ebenezer. (See McBride and Fisher.)						
Fisher, Frank E., Detroit, Mich. Annunciator.....	413,504	Oct. 22	2554	651	49	517
Fisher, George W., and E. Mmuel, Keene, N. H. Saw-guard.....	417,035	Dec. 17	3229	509	49	1822
Fisher, Harry. (See Bahendrick, Charles A. L., assignor.)						
Fisher, Isaac, New York, N. Y. Stop-valve.....	414,509	Nov. 5	503	123	49	842
Fisher, John C., Beloit, Kans., assignor to H. M. Wadleigh, Stevens Point, Wis. Grain-						
cleaning machine.....	414,510	Nov. 5	504	123	49	842
Fisher, John E., Boston, Mass. Apparatus for cleaning tracks.....	414,511	Nov. 5	506	123	49	843
Fisher, Josiah J. (See Davis and Fisher.)						
Fisher, Miles E. (See Jones, John B., assignor.)						
Fiske, Bradley A., U. S. Navy. Finding the position of distant objects.....	418,510	Dec. 31	3568	932	49	2103
Fiske, Daniel A., St. Louis, Mo. Churn-dasher.....	418,405	Dec. 31	3402	829	49	2068
Fiske, George M., Newton, Mass. Brick-work construction.....	415,772	Nov. 26	2470	645	49	1340
Fiske, George M., Newton, Mass. Brick.....	415,773	Nov. 26	2470	645	49	1340
Fiske, George M., Newton, Mass. Brick.....	415,774	Nov. 26	2471	645	49	1340
Fitch & Co., R. (See Farrell, Henry C., assignor.)						
Fitch, Ezra C., Newton, Mass. Watch-how faster.....	417,909	Dec. 24	3789	733	49	1937
Fitch, Lauren M., assignor of one-half to M. M. Davis, Rome, N. Y. Carriage-running-gear.....	417,317	Dec. 17	1729	464	49	1728
Fitch Type Writer Company. (See Brady, James, assignor.)						
Fitch, William E., assignor to Peerless Manufacturing Company, Louisville, Ky. Grate-						
front.....	414,292	Nov. 5	37	8	49	745
Fittou, T. H. (See Dunn, John P., assignor.)						
Fitts, George W., New York, N. Y., assignor to N. M. Eberhart and A. L. Thompson, Chi-						
cago, Ill. Disinfecting cake or tablet.....	417,386	Dec. 17	1844	.....	49	1749
Fitts, James E., Connelleville, Pa. Wagon-hub.....	415,505	Nov. 19	3050	532	49	1149
Fitz Gerald, Walter H., assignor to F. Ecaubert, Brooklyn, N. Y. Die for watch-causes.....	416,835	Dec. 10	1621	375	49	1578
Fitzgerald, Thomas, Ceres, N. Y. Horse-collar pad.....	414,305	Nov. 5	190	47	49	775
Fitzpatrick, James F., Brooklyn, N. Y. Temporary hinder.....	413,824	Oct. 29	3013	784	49	616
Foad, Henry, St. Louis, Mo. Indicating the velocity of running fluids.....	417,318	Dec. 17	1730	405	49	1729
Flam, William, and A. G. Brandt, Scranton, Pa. Combination walking-cane.....	412,379	Oct. 8	878	229	49	118
Fleischer, Johannes, Frankfurt-on-the-Main, assignor of one-half to W. Thomas, Offenbach-						
on-the-Main, Germany. Safety apparatus for carbonic-acid-gas flasks.....	412,702	Oct. 8	1357	353	49	273
Fleischhauer, Otto, Berlin, Germany. Snap-hook.....	416,453	Dec. 3	447	192	49	1459
Fleisch, James H., Newark, N. J. Water-case spring.....	411,890	Oct. 1	35	11	49	10
Fleming, William, et al. (See Wileshire, Frederick E., assignor.)						
Flesher, John, Edington, Ontario, Canada. Crosscut-saw.....	417,802	Dec. 24	2509	677	49	1806
Flesher, John H. and M. L., Rossville, Kans. Straw-stacker.....	416,549	Dec. 3	659	178	49	1200
Fletcher, Martin L. (See Fletcher, John H. and M. L.)						
Fletcher, Thomas, Jr. (See Smith, William O., assignor.)						
Fletcher, Charles. (See Peckham, Luther A., assignor.)						
Fletcher, Doc W., assignor of one-fourth to W. R. Fletcher, St. Louis, Mo. Steam-gener-						
ator.....	418,117	Dec. 24	2962	777	49	1971
Fletcher, Elmer, Needham, Mass. Button-hole attachment for sewing-machines.....	412,061	Oct. 1	435	113	49	87
Fletcher, Horatio, Newcastle-upon-Tyne, county of Northumberland, England. Bollard						
or mooring-post.....	415,965	Nov. 26	2761	721	49	1301
Fletcher, Horatio K., trustee. (See Logan, Thomas H., assignor.)						
Fletcher, John R. K., Dayton, Ohio. Wire holder and insulator.....	411,801	Oct. 1	36	11	49	10
Fletcher, Walter B. (See Fletcher, Doc W., assignor.)						
Fletcher, William A., Beaumont, Tex. Dredging-machine.....	418,000	Dec. 24	2781	733	49	1938
Flexible Engine and Threshing Machine Company. (See Sailer, John M., assignor.)						
Flick, John J., et al. (See Cowley, William W., assignor.)						
Flint, Edwin H., Cincinnati, Ohio. Stem winding and setting watch.....	413,654	Oct. 29	2773	720	49	570

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Di g.	Vol.	Page.
Flint, Thomas, <i>et al.</i> (See Henning, Abel, assignor.)						
Flood, Patrick, Albany, N. Y. Car-starter.	415,835	Nov. 30	2520	667	49	1357
Florer, George M., and C. W. Moyer, Beloit, Kans. Coffee-pot.	412,739	Oct. 15	1439	371	49	293
Florsheim, Elizabeth, <i>et al.</i> (See Gardner, Marshall, assignor.)						
Florsheim, Elizabeth, <i>et al.</i> (See Gardner and Stone, assignors.)						
Florsheim, Elizabeth, <i>et al.</i> (See Stone, James, assignor.)						
Flowers, Philip, assignor to R. T. Higgins, St. Louis, Mo. Chair	416,906	Dec. 10	1124	306	49	1309
Floyd, Byron B., Haverhill, Mass., assignor of three-fourths to J. F. Norton, P. W. Hammond, and F. Hall, Philadelphia, Pa. Sliding-lull and toboggan to be used therewith.	417,817	Dec. 24	2504	660	49	1284
Foehl, Frederick W. (See Meyer, Hermann H. B., assignor.)						
Flynn, Matthew. (See Roenispess and Flynn.)						
Flynn, Thomas, New York, N. Y. Paper-box machine	417,013	Dec. 10	1270	347	49	1620
Foehl, Charles, Philadelphia, Pa., assignor to Foehl & Weeks Fire Arms Manufacturing Company, of New Jersey. Fire-arm	417,672	Dec. 17	2277	603	49	1831
Foehl & Weeks Fire Arms Manufacturing Company. (See Foehl, Charles, assignor.)						
Fogarty, Thomas B., Long Island City, N. Y., assignor to American Ammonia Manufacturing Company, of Virginia. Making ammonia	417,777	Dec. 24	2443	644	49	1873
Fogarty, Thomas B., Long Island City, N. Y., assignor to American Ammonia Manufacturing Company, of Virginia. Apparatus for making ammonia	417,778	Dec. 24	2445	644	49	1873
Fogarty, Thomas B., Long Island City, N. Y., assignor to American Ammonia Manufacturing Company, of Virginia. Apparatus for making ammonia	417,779	Dec. 24	2447	644	49	1874
Follansbee, Benjamin G., Allentown, Pa. Car-coupling	415,194	Nov. 19	1550	492	49	1053
Follett, Charles, <i>et al.</i> (See Dowling, Robert H., assignor.)						
Follett, Charles H., <i>et al.</i> (See Dowling, Robert H., assignor.)						
Follett, Edward P., Rochester, assignor to C. A. White and O. P. Ross, Olean, N. Y. Fishing rod and reel	415,322	Nov. 19	1760	457	49	1093
Fones, Daniel O., <i>et al.</i> (See Heck, Louis F., assignor.)						
Fones, James A., <i>et al.</i> (See Heck, Louis F., assignor.)						
Fontaine, Eugene, Auburndale, Ohio. Railway time-signal	413,825	Oct. 29	3015	785	49	616
Fontaine, Eugene, Auburndale, Ohio. Railway time-signal	413,933	Oct. 29	3177	830	49	653
Foss Manufacturing Company. (See Winchell, James F., assignor.)						
Foste, George B., assignor of one-half to B. E. Harris, Helena, Mont. Adjustable hat-mark	416,672	Dec. 3	784	214	49	1385
Foste, George L., Brooklyn, assignor to Union Fire Alarm Company, New York, N. Y. Fire-alarm box	415,629	Nov. 19	2257	589	49	1190
Forbes, Emma L., (See Clark, Louis S., assignor.)						
Forbes, John S., Philadelphia, Pa. Steam-boiler feeder and indicator	414,203	Nov. 5	38	9	49	746
Forbes, William H. (See Wendt, William C., assignor.)	418,607	Dec. 31	3730	971	49	2133
Force, William A., and W. W. Sawyer, Brooklyn, N. Y. Consecutive-numbering machine.	412,489	Oct. 8	1038	270	49	210
Force, Elias T., Stillwater, N. Y. Potato-digger	412,490	Oct. 8	1041	270	49	210
Ford, Elias T., Stillwater, N. Y. Potato-digger	412,490	Oct. 8	1041	270	49	210
Ford, Eliza S. M., Christiansburg, Ky. Railway-car support	412,491	Oct. 8	1045	271	49	211
Ford, William W. (See Sactonberer, George P., assignor.)	412,002	Dec. 24	2784	734	49	1938
Foreman, Stanton. (See Foreman, William C. and S.)						
Foreman, William C. and S., Bidwell's Bar, Cal. Animal-gun	414,306	Nov. 5	191	47	49	776
Forney, Matthias N., New York, N. Y. Railway-car body	414,035	Oct. 29	3318	870	49	696
Forniasse, Donapoco, Belton, Tex. Baling-press	414,036	Oct. 29	3339	879	49	686
Forrest, Robert W. (See MacArthur and Forrest.)						
Forrest, William. (See MacArthur and Forrest.)						
Forrester, Peter C., Wilkeson, Wash. Ter. Machine for washing and separating or grading coal	414,393	Nov. 5	311	79, 80	49	801
Forssland, Hugo W., Chicago, Ill. Hydraulic-motor valve	417,716	Dec. 24	2545	719	49	1854
Forster, Henry J., Rochester, N. Y. Tobacco-pipe	418,511	Dec. 31	3572	937	49	2104
Forsyth, A. Barilla. (See Holtzman and Forsyth, assignors.)						
Forsyth, Henry H., Chicago, Ill. Apparatus for making spiral screw-threads	412,062	Oct. 1	437	113	49	87
Forsyth, Robert, Chicago, Ill. Railway-rail clamp	411,956	Oct. 1	383	68	49	53
Forsyth, Robert, Chicago, Ill. Metallic railway tie	411,959	Oct. 1	394	68	49	54
Forsyth, Thomas. (See Holtzman and Forsyth.)						
Fort, Laurens A., Raleigh, N. C. Car-mover	413,750	Oct. 29	2907	757	49	206
Fort Wayne Electric Light Company. (See McDonald and Cain, assignors.)						
Fort Wayne Furniture Company. (See Snyder, William D., assignor.)						
Fortenbaugh, Albert, Baltimore, Md. Hammock	417,161	Dec. 10	1502	409	49	1675
Forth, Charles, Cleveland, Ohio. Sewer-trap	417,636	Dec. 17	2439	592	49	1823
Forward, Ross, Cincinnati, Ohio. Feathering paddle-wheel	417,162	Dec. 10	1504	409	49	1676
Foss, George E., assignor to St. Albans Manufacturing Company, St. Albans, Vt. Process of and apparatus for drying lumber	414,294	Nov. 5	40	9	49	746
Foster, Charles W., New Haven, Conn.	418,003	Dec. 24	2753	735	49	1938
Foster, David A., and T. L. Barker, Westfield, Ind. Carpet-stretcher	416,725	Dec. 10	1463	382	49	1548
Foster, Frank N., assignor to himself and G. Orvis, Chicago, Ill. Pencil-clasp	413,655	Oct. 29	2773	730	49	570
Foster, Frederick, London, England. Means for opening bottles containing liquids under pressure	411,890	Oct. 1	170	43	49	35
Foster, John M., New York, N. Y. Pressure-regulating valve	414,975	Nov. 12	1215	316	49	965
Foster, Mark W., Peconic, Ill. Mechanical movement	414,512	Nov. 5	508	129	49	843
Foster, Robert, Troy, N. Y. Brush	416,330	Dec. 3	364	69	49	1432
Foster, Robert D. (See Deering and Foster.)						
Foster, Ross, and J. Howard, assignors to Avery Stamping Company, Cleveland, Ohio. Metallic wheel	413,933	Oct. 29	3181	831	49	654
Foster, Timothy H. (See Ayres, Edward F., assignor.)						
Foulis, William, Glasgow, county of Lanark, Scotland, assignor to F. and A. Siemens, London, England. Regenerative gas-retort furnace	418,314	Dec. 31	3270	853	49	2041
Foulis, John W., Brooklyn, assignor to J. W. Lawton, New York, N. Y. Manufacture of horseshoe-caliks	417,912	Dec. 24	2578	696	49	1910
Fouquet, Leon C., Magnolia, Ind. Air-cooling apparatus for rooms	416,405	Dec. 3	377	101	49	1444
Foust, Nathaniel, assignor to N. W. Fredericks, Lock Haven, Pa. Making tuyeres	417,163	Dec. 10	1505	410	49	1675
Foust, Nathaniel, assignor to N. W. Fredericks, Lock Haven, Pa. Tuyere-machine	417,164	Dec. 10	1506	410	49	1676
Fowler Brothers. (See Holden, Warren, assignor.)						
Fowler, Charles, Boston, Mass. Speed-indicator	418,608	Dec. 31	3722	972	49	2133
Fowler, Frank. (See Hardwick, Umet, and Fowler.)						
Fowler, Frank E., assignor of one-half to H. A. Marks, Lynn, Mass. Separable electric conductor for railway-gates	415,710	Nov. 26	2382	621	49	1223

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.
			Spec.	Dr. & Vol.	
Fowler, George, Peckham, county of Surrey, England. Insulator	415,504	Nov. 19	3032	332	40 1150
Fowler, Henry C., Burlington, N. C. Quill or bobbin holding device for bobbin-winding spindles	416,292	Dec. 3	212	553	45 1410
Fowler, Herbert E., New Haven, Conn., assignor of one-half to D. T. Hedges, Sioux City, Iowa. Electrical pipe or metal welding machine	417,013	Dec. 10	1272	347	40 1630
Fowler, Herbert E., New Haven, Conn., assignor to United States Pipe Bending and Coiling Company, Chicago, Ill. Machine for bending pipe	417,553	Dec. 17	2116	563	40 1800
Fowler, James S., St. Elmo, Tenn. Silt-pump	414,513	Nov. 5	508	129	49 843
Fowler, John W., Brooklyn, N. Y. Car-ventilator	415,360	Nov. 19	1816	472	40 1101
Fowler, Joseph C., Washington, D. C. Machine for cutting lobed gears	414,803	Nov. 19	948	245	40 935
Fowler, Joseph C., Washington, D. C. Mechanical movement	415,630	Nov. 19	2229	369	40 1190
Fowler, Joseph J., Washington, Mo. Mechanical repository	413,851	Oct. 29	3047	794	49 623
Fowler, William, Milton, Del. Hatchet	414,092	Nov. 12	795	206	40 905
Fox, Alexander, Galesburg, Ill. Car-coupling	412,380	Oct. 8	879	249	40 1278
Fox, Charles, Newark, N. J. Revolving harrow	415,813	Nov. 26	2022	659	49 1850
Fox, Frank A., San Francisco, Cal. Car-coupling	413,044	Oct. 15	1856	486	40 375
Fox, George H., Boston, Mass. Spring-button	415,775	Nov. 26	2471	643	40 1340
Fox, Samson, Harrogate, county of York, England. Corrugated furnace or flue	414,707	Nov. 12	896	230	40 924
Fox, Samson, Harrogate, county of York, England. Corrugated furnace and flue	417,818	Dec. 24	2306	660	49 1854
Fox Solid Pressed Steel Company. (See Hughes, Edward W. M., assignor.)					
Fox, William E., Grand Rapids, Mich. Dado-center. (Reissue)	11,093	Oct. 8	1385	361	49 279
Fox, William E., Grand Rapids, Mich. Tension-center	413,364	Oct. 22	2361	611	49 477
Foxwell, John B., New York, N. Y. Sydney W. Wilkinson, Sydney W. assignors.					
Foy, Phineas N. (See Glendinning, David W. and F. W., assignors.)					
Fraser, Louis. (See Hoyt and Frasher.)					
Frackmann, Henry W., Philadelphia, Pa. Running-gear for vehicles	414,693	Nov. 12	795	206	40 905
Frager, Alphonse J., Paris, France. Electric meter	418,559	Dec. 31	366	954	49 2118
Fraim, Edward T., et al. (See Amwake, Jacob B., assignor.)					
Fraim, Miller W., et al. (See Amwake, Jacob B., assignor.)					
Franchillon & Co., Ernest. (See Gerber and Audemans, assignors.)					
Francis, Stephen, Canton, Ohio. Brace-chuck	414,768	Nov. 12	897	222	40 925
Francis, Stephen, Canton, Ohio. Borel	415,503	Nov. 19	2024	323	40 1150
Francis, Stephen, Canton, Ohio. Hand-punch	415,536	Nov. 26	2560	668	49 1237
Frank, Charles M., Stanton, Mich. And-England way for shingle-sawing machines	415,323	Nov. 19	1761	477	40 1093
Frank, Henry C., New York, N. Y. Cuff-fastener	412,441	Oct. 22	2458	658	49 1297
Frank, George A., Mühlhausen, Prussia, Germany. Valve-gear	418,404	Dec. 31	3403	899	49 2068
Franklin, Edward A., Brenham, Tex., assignor to Bailey, Farrell & Company, Pittsburg, Pa. Cartridge-ripping	417,673	Dec. 17	2278	603	49 1832
Franklin, Rhodolph H., assignor to C. C. Cummings, Brooklyn, N. Y. Watch-key	414,694	Nov. 12	950	246	40 935
Frantz, Willis W., Waynesborough, Pa. Preserving lime	412,247	Oct. 8	680		40 141
Frantz, Wincent, assignor to T. Kundtz, Cleveland, Ohio. Combined mangle and cupboard	417,319	Dec. 17	1734	456	49 1729
Franz, Henry, assignor to T. Evans Company, Pittsburg, Pa. Tool for flaring and crimping glassware	416,099	Nov. 26	2975	775	49 1343
Fraser, Herman, London, Ontario, Canada. Drying and roasting apparatus	418,315	Dec. 31	3271	654	49 2041
Fraser, Alexander M. (See Warriner, James, assignor.)					
Fraser, Daniel, assignor to Excelsior Elevator Guard and Hatch Cover Company, New York, N. Y. Elevator hatchway guard	413,318	Oct. 23	2285	594	49 465
Fraser, George, assignor of one-half to R. Kancher, Rochester, N. Y. Label or stamp protector	414,205	Nov. 5	43	9	40 746
Fraser, Fred, Syracuse, N. Y. Flame	418,609	Dec. 31	3723	972	49 2133
Frazier, David C., and W. J. Davis, New Market, N. J. Animal tread-power	411,896	Oct. 1	391	78	40 61
Freas, Louis, assignor to Taylor & Dean, Pittsburg, Pa. Iron fence	412,173	Oct. 1	572	149	40 115
Fredericks, Newton W. (See Foust, Nathaniel, assignor.)					
Free, Harry A., Yacaville, Cal. Paper-fastener	417,165	Dec. 10	1507	410	49 1676
Free, John W., Boston, Mass., and M. A. Barber, Norwich, Conn. Malt-machine	413,137	Oct. 15	1999	520	40 463
Free, John W., Boston, Mass., and M. A. Barber, Norwich, Conn. Malt-stirring machine	413,138	Oct. 15	2000	521	40 463
Freud, David, Philadelphia, Pa. Screw-propeller	412,804	Dec. 24	2624	700	49 1807
Freedle, James W., Cleveland, Ohio. Camera-box	417,863	Dec. 24	2570	677	49 1893
Freedman, Hayman, assignor of one-half to N. Stein, Rochester, N. Y. Tucking-guide for sewing-machines	414,149	Oct. 29	3507	911	49 722
Freeland, Buckner P., Vietri, Ind. Railway station signal	415,600	Dec. 24	2624	700	49 1807
Freeland, James R., Wellsville, N. Y. Carriage-pole	415,101	Nov. 12	1858	363	40 1021
Freeman, George W., Frankfort, Ind. Combined buckle and snap-hook	418,001	Dec. 24	2783	734	49 1938
Freeman, James B., Los Angeles, Cal. Ore-separator	412,741	Oct. 15	1422	372	40 393
Freeman, John R., Boston, Mass. Valve operating and indicating post	413,714	Oct. 29	2859	746	49 386
Freeman, John R., Boston, Mass. Shoe-sewing machine	415,166	Nov. 12	1524	395	40 1058
Freemao, Simon J., Bradford, Pa. Car-coupling	412,492	Oct. 8	1049	272	40 211
Fredline, Michael H., near Fredonia, Kans. Buckle	413,751	Oct. 29	2909	737	49 506
Frest, Henry C., assignor of three-fourths to J. Morwitz, Philadelphia, Pa. Casein paint	416,100	Nov. 26	2976		49 1344
French, Alonzo, New York, N. Y. Lamp or analogous structure	416,219	Dec. 3	97	38	49 1388
French, Arthur S. (See Cook, Addison M., assignor.)					
French, Franklin H. (See Pinkney, William A., assignor.)					
French, Garrie S. (See Jayne, William H., assignor.)					
French, Nelson W., Tunksamock, Pa. Chain propeller	413,252	Oct. 29	3049	795	49 624
French, Zachary T., and W. C. Meyer, Boston, Mass., assignors to Goodyear Shoe Machinery Company, Hartford, Conn. Sewing-machine	412,703	Oct. 8	1359	354	40 273
French, Zachary T., and W. C. Meyer, Boston, Mass., assignors to Goodyear Shoe Machinery Company, Hartford, Conn. Shoe-sewing machine	412,704	Oct. 8	1364	350	40 274
Frenier, John H., and L. Leblanc, Rutland, Vt. Mechanism for feeding sand and water to stone-sawing machines	415,452	Nov. 19	1961	510	49 1131
Ferichs, Frederick W. A., P. Lou, Me. Machine for treating the alkalies	415,835	Nov. 12	1963		49 344
Freshour, Andrew C., and G. W. Lake, Marion, Ind. Roofing-paint	415,960	Nov. 26	2763		49 1302
Frendenberg, Hermann E., Weinheim, Baden, Germany. Apparatus for treating hides	413,021	Oct. 22	2895	700	49 544

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & C.	Vol.	Page.
Frey, John. (See Holloway and Frey.)						
Frier, Latharo M., Rochester, N. Y. Lift-bridge	417,481	Dec. 17	1983	529	49	1777
Frick, Charles E., Norwood, assignor of one-half to F. Gau. Cincinnati, Ohio. Combined back and head	418,064	Dec. 24	2788	735	49	1939
Frick, Frederick. (See Frick, George and F.)						
Frick, George and F., Waynesborough, Pa. Drier for fruit	414,306	Nov. 5	44	10	49	746
Frick, George and F., Waynesborough, Pa. Drier for fruit and like articles	417,014	Dec. 10	1273	348	49	1630
Fricke, Henry, London, England, assignor to F. L. Wanzer, Hamilton Canada. Cooking edibles	418,119	Dec. 24	2967	778	49	1972
Friedenstein, Simon. (See Schoen and Friedenstein.)						
Friedenwald Brothers. (See White, Charles, assignor.)						
Frieke, Thomas E., Coatsburg, Ill. Wire-stretcher and staple-puller	418,172	Dec. 31	3039	692	49	1988
Friabe, Charles W., Minneapolis, Minn. Apron	415,837	Nov. 26	2561	668	49	1357
Friabe, Gideon, New York, N. Y. Crushing-mill	415,841	Nov. 26	2725	712	49	1294
Frisbie, Henry B. (See McAuley and Frisbie.)						
Frith, Arthur J. (See Binasse and Frith.)						
Frith, Frederick W., Lenoxville, Quebec, Canada. Electric railway-signal	416,406	Dec. 3	379	161	49	1445
Fritzsche, Oswald W. (See Minard, George B., assignor.)						
Frodson, John, and A. McLinden, Maryport, county of Cumberland, England. Air-feeding device	417,913	Dec. 24	2639	697	49	1911
Frost, Abel H., et al. (See Hill, Christian C., assignor.)						
Frost, Charles H. (See Burkman, Waldo, assignor.)						
Frost, Edward, Littleton, Mass. Bell	418,560	Dec. 31	2650	955	49	2119
Frost, George G., et al. (See Scales, William S., assignor.)						
Frost, George J., assignor of one-half to G. Dickson, Toronto, Ontario, Canada. Window blind-fastener	417,240	Dec. 17	1612	438	49	1706
Frost, Stiles, et al. (See Newell, George F., assignor.)						
Frothingham, Charles F. (See Smith, Eugene C., assignor.)						
Fry, George, Phoenix, Ariz. Ter. Road-scraper	412,742	Oct. 15	1424	372	49	294
Fryer, Aaron. (See Van Deusen, Emory, assignor.)						
Frymire, Lon N., and F. S. Derr, Watertown, Pa. Envelope	412,325	Oct. 8	795	207	49	169
Fuchs, Bernhard, Rawitsch, Prussia, Germany. Album-leaf	415,942	Nov. 26	2727	713	49	1394
Fuel Gas and Electric Engineering Company. (See Wyban, Joseph, assignor.)						
Fuel Gas and Light Improving Company of America. (See Mackenzie, Philip W., assignor.)						
Fulcher, Joseph W., assignor of one-half to J. S. Pilcher, Nashville, Tenn. Combined planing and sawing machine	418,118	Dec. 24	2966	776	49	1972
Fuller, Charles W. B. (See Eldridge and Fuller.)						
Fuller, Francis E. (See Elbery, Robert L., assignor.)						
Fuller, George P., Minneapolis, Minn. Wash-board	414,805	Nov. 12	951	246	49	935
Fuller, Jacob C. (See Norton, James W., assignor.)						
Fuller & Warren Company. (See Wolfe, Gordon G., assignor.)						
Fullerton, William H., Little Rock, Ark. Awning	415,102	Nov. 12	1289	363	49	1029
Fulton, Joseph H., West Lebanon, Pa. Straw-carrier for thrashing-machines	413,251	Oct. 22	2172	565	49	443
Funk, Isaac R. and L. L. Chicago, Ill. Hydraulic air-compressor	417,717	Dec. 24	2347	619	49	1855
Funk, Levi L. (See Funk, Isaac R. and L. L.)						
Funkhouser, Maurice. (See Rinker, Robert S., assignor.)						
Furlong, Patrick M. (See Benedict and Furlong.)						
Furness, Frank, Philadelphia, Pa. Floor for buildings	416,907	Dec. 10	1125	307	49	1600
Fye, William H., Chicago, Ill. Sash-lift	418,173	Dec. 31	3060	692	49	1999
Fye, William H., assignor of one-half to F. W. Meyer, Chicago, Ill. Weather-strip	412,493	Oct. 8	1050	272	49	312
Gabber, Robert S., Rossville, Kans. Grain-elevating attachment for thrashing-machines	413,945	Oct. 15	1856	486	49	375
Gable, Frank M. (See Fellows, Alfred, assignor.)						
Gadberry, Harvey O., assignor of one-half to J. W. Davis and J. S. Johnston, Cawker City, Kans. Device for filling saws	415,245	Nov. 19	1627	430	49	1067
Gale, James P., Fairfield, Iowa. Folding chair	417,819	Dec. 24	2596	669	49	1885
Gair, Robert. (See Moodie, Elhanan L., assignor.)						
Galbraith, Robert, Lansingburg, assignor to S. S. Jewett & Co., Buffalo, N. Y. Oven of cooking stoves or ranges	416,160	Dec. 3	18	6	49	1372
Galbreath, Edmon D., W. Dumble, and B. Chapman, Linden, Ind. Bolt-lock	415,711	Nov. 26	2323	622	49	1253
Gale, Charles C., Glenville, Ohio. Device for darning stockings	417,718	Dec. 24	2349	619	49	1855
Gale, Herbert N., Bristol, Conn. Steam-engine	416,454	Dec. 3	448	122	49	1469
Gale, Herbert N., Bristol, Conn. Assignor of one-half to J. H. Twisden, Boston, Mass. Mount for photographs	412,853	Oct. 15	1720	450	49	348
Gale, Horatio, et al. (See Brundage, William D., assignor.)						
Gale Manufacturing Company. (See Hickman, Edgar M., assignor.)						
Gallagher, George F., and T. B. Moore, assignors of one-sixth to H. Gallagher, Rochester, N. Y. Furnace	414,037	Oct. 29	3341	871	49	687
Gallagher, George F., and T. B. Moore, assignors of one-third to H. Gallagher, Rochester, N. Y. Furnace	414,150	Oct. 29	3509	912	49	722
Gallagher, George F., and T. B. Moore, assignors of one-third to H. Gallagher, Rochester, N. Y. Furnace	414,151	Oct. 29	3510	913	49	722
Galland, Joseph, assignor to Aultman & Taylor Company, Mansfield, Ohio. Thrashing-machine	411,803	Oct. 1	37	12	49	11
Galloway, John T., Alford, Tex. Seed-planter and fertilizer-distributor	418,174	Dec. 31	3061	693	49	1999
Galster, John. (See Diehl, George W., assignor.)						
Galt, Thomas A. (See Tracy, George S., assignor.)						
Galvin, James, Detroit, Mich. Gate-valve	415,776	Nov. 26	2473	648	49	1243
Galvin, John F. (See Ekstrom and Galvin.)						
Gamble, Rufus E., St. Louis, Mo. Garden implement	417,554	Dec. 17	2117	564	49	1800
Ganewell Fire Alarm Telegraph Company. (See Dewar, William E., assignor.)						
Gaquin, Thomas, Jr., Haverhill, Mass. Sewing-machine	414,514	Nov. 5	510	129	49	844
Garcy, Caleb E., New York, N. Y. Draw-hook for street-cars	418,454	Dec. 31	3480	910	49	2063
Gardie, Céphas F. L., assignor to Société Anonyme des Moteurs Thermiques Gardie, Nantes, France. Thermic motor	412,882	Oct. 15	1618	423	49	328
Gardner, Addison E., assignor of one-half to R. Swazey, F. Stevens, and A. Hayden, Milan, Mich. Button-display board	414,515	Nov. 5	513	130	49	844
Gardner, Arthur O. (See Whalen, Case, and Gardner.)						
Gardner, John S. (Bukies, Eugene, assignor.)						
Gardner, John T., Boston, assignor to S. Kidder, trustee, Melrose, Mass. Box-fastener	414,633	Nov. 5	697	181	49	878

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Gardner, Marshall, assignor to J. Stone and A. M. Ball, Aurora, and E. Florsheim, Chicago, Ill. Cord-looping attachment for sewing machines.	413,853	Oct. 29	3051	795	49	624
Gardner, Marshall, and J. Stone, assignors, by sewing-machine attachment for making dress-stiffening.	413,931	Oct. 29	3129	831	49	654
Garfield Injector Company. (See Barnett, William, assignor.)	417,719	Dec. 24	2331	619	49	1855
Garland, Nathan M., St. Louis, Mo. Automatic safety gas-burner.	414,394	Nov. 5	314	80	49	802
Garnier, Thomas R., San José, Cal. Ore-concentrator.	413,752	Oct. 20	2910	757	49	597
Garrard, Samuel C., et al. (See Grafton, William C., assignor.)	417,719	Dec. 24	2331	619	49	1855
Garrett, Arthur, Towcester, and G. Webster, Ailcoote, county of Northampton, assignors to J. J. Jippha, Northampton, England. Punching and eyeletting machine.	416,003	Nov. 26	2984	749	49	1322
Garrett, John W., Jr., Spartanburg, S. C. Hydraulic motor.	418,610	Dec. 31	3724	972	49	2133
Garst, Newton, Wichita, Kans. Laundry-tag.	413,656	Oct. 29	2774	730	49	570
Garth, Henry W., et al. (See Smith, John G., assignor.)	415,631	Nov. 19	2261	590	49	1191
Garth, John H., et al. (See Smith, John G., assignor.)	418,610	Dec. 31	3724	972	49	2133
Garton, George, Millville, N. J. Tool for finishing glass bottles.	413,656	Oct. 29	2774	730	49	570
Garverich, Frank H., Dauphin, Pa. Planing-machine.	415,631	Nov. 19	2261	590	49	1191
Garwood, Spencer, Milford Centre, Ohio. Velocipede.	418,611	Dec. 31	3725	973	49	2133
Gas Improvement Company. (See Close, Thomas J., assignor.)						
Gaskill, Harvey F., deceased, Lockport, N. Y. M. E. Gaskill executrix. Double-piston rotary meter.	414,894	Nov. 12	796	207	49	905
Gaskill, Mary E., executrix. (See Gaskill, Harvey F.)						
Gaston, John I. (See Richards, James, assignor.)	417,535	Dec. 17	2118	564	49	1800
Gatenby, Robert, Sr., Crystal, N. D. Seed-drill.	414,110	Oct. 29	3447	896	49	709
Gates, Elias, Coxsack, N. Y. Snow-scraper.	413,990	Nov. 26	2805	735	49	1311
Gates, George, Drytown, Cal. Concentrator.				736		
Gates, George W., assignor, by mesne assignments, to Bissell Carpet Sweeper Company, Grand Rapids, Mich. Carpet-sweeper.	412,219	Oct. 1	636	166	49	127
Gates, P. Tenney. (See Brock, William E., assignor.)						
Gates, William H., Detroit, Mich. Brush.	416,590	Dec. 3	361	179	49	1501
Gathmann, Anton D. L., Baltimore, Md. Fire-knifender.	418,416	Dec. 31	3722	855	49	2042
Gan, Frederick. (See Frick, Charles E., assignor.)						
Gaul, Harry R., assignor to Keystone Watch Case Company, Philadelphia, Pa. Watch-case spring.	415,669	Nov. 19	2210	603	49	1201
Gault, Thomas, Brooklyn, N. Y. Evaporator.	414,696	Nov. 12	799	308	49	905
Gaunt, Thomas, Brooklyn, N. Y. Evaporating apparatus.	416,455	Dec. 3	450	122	49	1460
Gaunt, Thomas, Brooklyn, N. Y. Evaporating apparatus.	416,456	Dec. 3	452	123	49	1460
Gause, James E., Brownsville, Tenn. Guideway for traveling toys, vehicles, &c.	417,015	Dec. 10	1275	349	49	1631
Gause, Henry A., assignor to H. Gautschi & Sons, Philadelphia, Pa. Music-box.	415,043	Nov. 12	1297	338	49	1002
Gautschi & Sons, Henry. (See Gautschi, Henry A., assignor.)						
Gay, Cassius M., Oak Park, assignor of one-half to F. H. Palmer, Maple Park, Ill. Pen-holder-guiding attachment.	412,174	Oct. 1	572	149	49	115
Gay, Frank Y., and A. A. Wilson, Clay Centre, Kans. Door-check.	416,056	Nov. 26	2897	756	49	1329
Gaylord, Charles D. (See Barber, Arthur J., assignor.)						
Gaynor Electric Company. (See Gaynor, Thomas F., assignor.)						
Gaynor, Thomas F., Louisville, Ky. Setting for coins.	417,016	Dec. 10	1277	349	49	1631
Gaynor, Thomas F., assignor to Gaynor Electric Company, Louisville, Ky. Bell-striking apparatus.	411,804	Oct. 1	39	12	49	11
Gaynor, Thomas F., assignor to Gaynor Electric Company, Louisville, Ky. Bell-striking apparatus.	411,805	Oct. 1	41	12, 13	49	11
Gaynor, Thomas F., assignor to Gaynor Electric Company, Louisville, Ky. Electro-mechanical tripping machine.	414,695	Nov. 12	797	207	49	905
Gearing, Charles, assignor to C. M. Gearing, Pittsburgh, Pa. Apparatus for the manufacture of gas.	414,038	Oct. 29	3342	871	49	687
Gearing, Charles M. (See Gearing, Charles, assignor.)						
Gedney, Jacob M. R., Little Falls, N. J. Nut-lock.	417,417	Dec. 17	1881	504	49	1757
Gedney, Jacob M. R., Little Falls, N. J. Wear-iron for vehicles. (Reissue.)	11,046	Dec. 17	3217	612	49	1839
Gefrover, Henry, Philadelphia, Pa., assignor to J. H. and F. Ferguson, Bridgeton, N. J. Heating apparatus.	414,039	Oct. 29	3344	871	49	687
Gehrke, Friedrich, Milwaukee, Wis. Stacking bar.	414,516	Nov. 5	514	131	49	844
Geiger, Jacob, deceased, Stuttgart, Germany; J. A. Straley administrator. Machine for attaching metal clips to card-board boxes.	416,908	Dec. 10	1126	307	49	1600
Gelsenheimer, Joseph. (See Donovan and Gelsenheimer.)				308		
Gelsenheimer, Joseph, New York, N. Y. Ticket-holder.	417,166	Dec. 10	1507	410	49	1676
Geisenhöner, Heinrich, Schenectady, N. Y. Dynamo-electric machine.	414,900	Nov. 12	1104	284	49	963
Geist, Gottfried, Hastings, Neb. Wheat-bulling machine.	418,175	Dec. 31	3064	803	49	1999
Gendron Iron Wheel Company. (See Gendron, Peter, assignor.)						
Gendron, Peter, assignor to Gendron Iron Wheel Company, Toledo, Ohio. Tricycle.	418,005	Dec. 24	2789	736	49	1909
Geneste, William. (See Wall, Nick, assignor.)						
Gennert, Emil F., assignor to E. P. Gleason Manufacturing Company, New York, N. Y. Incandescent lamp.	413,442	Oct. 29	2459	638	49	498
Gentee, Isaac, Aurora, Kan. Drum equalizer.	412,948	Oct. 8	961	180	49	141
Genther, Frederick. (See Yelding, Richard, assignor.)						
Gentry, James C., Monroe City, Mo. Implement for holding sickle-bars.	415,712	Nov. 26	2385	622	49	1223
Gentry, John W., assignor of two-thirds to G. A. Loring and W. H. Terry, Oakland, Cal. Cable-grip.	416,673	Dec. 3	785	215	49	1525
Geuten, Herman, Fort Ringgold, Tex. Soldier's cart.	417,017	Dec. 10	1279	349	49	1631
Geunung, William H., Madison, Ohio. Drill.	413,394	Oct. 29	2400	622	49	485
George, Oscar F., Black Brook, N. Y. Remedy for dyspepsia.	414,901	Nov. 12	1105	285	49	964
George, William E., and J. A. McGinnis, Harlan, Iowa. End-gate fastening.	414,395	Nov. 5	516	80	49	802
Gerber, Henri, St. Imier, and H. Andemans, Brasserie, assignors to E. Francillon & Co., St. Julien, Switzerland. Stem winding and setting watch.	415,632	Nov. 19	2292	590	49	1191
Gerhardt, Charles. (See Horn, Heinrich, assignor.)						
Gerking, George W., and S. Lewis, New York, N. Y. Car-coupling.	411,801	Oct. 1	1771	44	49	35
Germann, John M., New York, N. Y. Spoke-drawer.	414,902	Nov. 12	1105	285	49	964
Gernert, John. (See Wilcox, William R., assignor.)						
Gerry, James H., Brooklyn, N. Y. Electric regulator for pendulum clocks.	413,340	Oct. 29	2392	602	49	471
Gottman, Henry W., Ilion, N. Y. Trace-fastener.	414,517	Nov. 5	515	131	49	845
Govalt, Frederic J., Chelsea, Mass. Spinner-boom standard.	415,846	Oct. 15	1862	486	49	376

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Geyer, Charles M. (See Boyer and Geyer.)						
Gfeller, Peter H., et al. (See Rohmblust, Romanns and A., assignors.)						
Giant Electric Motor Company. (See Peck, Charles C., assignor.)						
Gibbs, Charles E. (See Dunbar and Gibbs.)						
Gibbs, Fletcher B., Chicago, Ill. Tablet.....	418,176	Dec. 31	3065	804	49	1990
Gibbs, Fletcher B., Chicago, Ill. Combined carbon-paper holder and writing-tablet.....	418,292	Dec. 31	3215	841	49	2030
Gibbs, Frederick H., Syracuse, N. Y. Tricycle.....	416,301	Dec. 3	602	179	49	1361
Gibbs, James E. A. (See Willcox and Gibbs.)						
Gibbs, James E. A., Steele's Tavern, Va. Sewing-machine take-up.....	415,814	Nov. 26	3524	659	49	1251
Gibbs, James E. A., Raphine, Va., assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y. Tension apparatus for sewing-machines.....	413,657	Oct. 29	2774	721	49	570
Gibeault, Uldarique, St. Isidore, Quebec, Canada. Hub for wheels.....	416,361	Dec. 3	314	82	49	1430
Gibson, Adelbert R. (See McKenzie and Gibson.)						
Gibson, Andrew J., Pontiac, Ill. Wall-paper trimmer and straight-edge.....	417,167	Dec. 10	1508	411	49	1676
Gibson, Parsh & Company. (See Peterson, Enoch, assignor.)						
Gibson, William P., New York, N. Y. Pneumatic elevator.....	412,326	Oct. 8	706	207	49	163
Gibson, William P., New York, N. Y. Valve mechanism for elevators.....	412,227	Oct. 8	799	207	49	163
Gibson, William P., New York, N. Y. Automatic stop mechanism for elevators.....	412,327	Oct. 8	801	208	49	163
Gibson, William P., New York, N. Y. Safety device for elevators.....	412,329	Oct. 8	803	209	49	164
Gibson, William P., New York, N. Y. Valve-operating device for elevators.....	412,330	Oct. 8	805	208	49	164
Gibson, William P., New York, N. Y. Hydraulic motor.....	412,331	Oct. 8	807	209	49	164
Gibson, William P., New York, N. Y. Electrically-controlled speed-governor mechanism for elevators.....	412,332	Oct. 8	810	210	49	164
Gibson, William P., New York, N. Y. Electrically-controlled valve-operating mechanism for elevators.....	412,333	Oct. 8	812	211	49	165
Gibson, William P., New York, N. Y. Valve-operating mechanism for elevators.....	412,334	Oct. 8	814	211	49	165
Gibson, William P., New York, N. Y. Valve mechanism for hydraulic elevators.....	418,405	Dec. 31	3404	890	49	2069
Gibson, William P., New York, N. Y. Speed-governor mechanism for elevators.....	418,406	Dec. 31	3406	891	49	2069
Giddings, Vermont. (See Smith and Giddings.)						
Gifford, Lord B., Toledo, Ohio. Car-mover.....	413,228	Oct. 22	2144	557	49	437
Gilbert & Bennett Manufacturing Company. (See Gilbert, Edwin, assignor.)						
Gilbert, Edwin, assignor to Gilbert & Bennett Manufacturing Company, Georgetown, Conn. Fence-post.....	412,954	Oct. 15	1721	450	49	345
Gilbert, Frank H., Union Ridge, Wash. Fruit-drier.....	418,407	Dec. 31	3409	891	49	2069
Gilbert, George D., Corry, Pa. Tramway-locomotive.....	413,505	Dec. 22	2555	661	49	517
Gilbert, George W., Kendallville, Ind. Photograph-frame.....	415,713	Nov. 26	3368	622	49	1223
Gilbert, Harry L., assignor to Chicago Drop Forge and Foundry Company, Chicago, Ill. Tongue-bond and making the same.....	416,290	Dec. 3	160	44	49	1369
Gilbert, Henry J., Saginaw, Mich. Separable pulley.....	416,457	Dec. 3	454	123	49	1460
Gilbert, Henry J., Saginaw, Mich. Separable pulley.....	416,592	Dec. 3	664	179	49	1501
Gilbert, James S., Buffalo, N. Y. Buckle.....	415,776	Oct. 29	2949	769	49	603
Gilbert, Orvellas H., Newark, N. J. Lock.....	414,518	Nov. 5	515	131	49	845
Gilbert, Solomon E., Philadelphia, Pa. Saddle for velocipedes.....	415,291	Nov. 19	1709	443	49	1082
Gilbert, Thomas S., New Haven, Conn., assignor to Weingarten Brothers, New York, N. Y. Carset.....	412,494	Oct. 8	1051	272	49	212
Gilbert, William H., Baltimore, Md., assignor of one-fourth to E. B. Welch, Cambridge, Mass. Can-soldering machine.....	417,720	Dec. 24	3232	620	49	1556
Glicher, Henry J., Ashabuto, Ohio. Basin waste and stop.....	413,365	Oct. 22	2363	611	49	478
Giles, Edwin L., Lowell, Mass. Store-service apparatus.....	414,132	Oct. 29	3511	913	49	723
Giles, Isaac, New York, N. Y. Apparatus for extracting meat-juice.....	413,777	Oct. 29	2949	769	49	603
Giles, Isaac, New York, N. Y. Apparatus for making extracts.....	417,168	Dec. 10	1509	411	49	1677
Gillett, Secondo. (See Chatain and Gillett.)						
Gilham, Leroy. (See Gilham, Eckert, and Gilham.)						
Gilham, Thomas H., W. C. Eckert, and L. Gilham, Beowawe, Nev. Link-adjuster for car-couplings.....	412,351	Oct. 8	881	230	49	179
Gill, James W., Fairview, Ohio. Feed-rack.....	418,006	Dec. 24	2791	736	49	1940
Gill, Martin G. (See Sneider, Charles E., assignor.)						
Gill, Ray, and F. A. Kilber, St. Louis, Mo. Capodastro for banjos or guitars.....	416,057	Nov. 26	2699	756	49	1329
Gillespie, Robert W., St. Louis, Mo. Snake-joint.....	412,083	Oct. 1	429	114	49	88
Gillespie, Thomas A., Pittsburg, Pa. Pipe-joint.....	418,007	Dec. 24	2791	736	49	1940
Gillet, Elizabeth A. (See Gillet, Etienne, assignor.)						
Gillet, Etienne, assignor to E. A. Gillet, New York, N. Y. Steam-boiler.....	414,207	Nov. 5	49	11	49	747
Gillet, Etienne, assignor to E. A. Gillet, New York, N. Y. Boiler.....	414,696	Nov. 12	932	247	49	536
Gillet, Etienne, assignor to E. A. Gillet, New York, N. Y. Evaporator.....	418,642	Dec. 31	3773	925	49	2144
Gillet, Lester A., Leonardville, Kans. Grain-weigher.....	412,382	Oct. 8	862	230	49	179
Gillett, Webster, assignor to C. F. Gillette, New York, N. Y. Magneto-electric machine.....	418,120	Dec. 24	3970	778	49	1973
Gillette, C. F. (See Gillette, Webster, assignor.)						
Gillham, Robert, Kansas City, Mo. Pulley.....	412,335	Oct. 8	815	211	49	165
Gillham, Robert, and M. S. Towson, Kansas City, Mo. Car-mover.....	417,720	Dec. 24	3250	645	49	1574
Gillies, George, Gananoque, Ontario, Canada. Harrow.....	415,410	Nov. 19	1886	491	49	1116
Gillis, Arthur L., Mount Pleasant, Iowa. Chart for teaching addition.....	416,593	Dec. 3	665	179	49	1501
Gillmann, Charles, East Park, N. Y. Street-sweeping machine.....	413,336	Oct. 8	817	212	49	166
Gillmann, Charles, East Park, N. Y. Post-wringer.....	415,195	Nov. 19	1590	402	49	1053
Gilpin, Arthington, Philadelphia, Pa. Railway-trip clamp.....	417,791	Dec. 34	3452	645	49	1575
Gilpin, Samuel H., Salt Lake City, Utah Terr. Composition for overhead insulators.....	415,264	Nov. 26	3597	678	49	1265
Gimson, Arthur J. (See Gimson, Josiah M., J. A. J., and S. A.)						
Gimson, Josiah. (See Gimson, Josiah M., J. A. J., and S. A.)						
Gimson, Josiah M., J. A. J., and S. A. Leicester, county of Leicester, England. Heel-burnishing machine.....	415,340	Nov. 19	1786	464	49	1097
Gimson, Sydney A. (See Gimson, Josiah M., J. A. J., and S. A.)						
Ginna, Stephen A., et al. (See Hipperling, William, assignor.)						
Glanuth, William M., et al. (See Monday, Robert, assignor.)						
Gipple, Harvey W., assignor of one-half to W. H. Jones, Audubon, Iowa. Grain-measure.....	415,292	Nov. 19	1710	444	49	1082
Girard, Edward, Chicago, Ill. Gate for swinging bridges.....	413,277	Oct. 22	2215	577	49	451

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr.	Vol.	Page.
Girard, Joseph, Worcester, Mass. Injector oil-burner	418,191	Dec. 24	2972	778	49	1973
Girardin, Gaspard O., Lake Linden, Mich. Organ-pallet	414,396	Nov. 5	317	81	49	802
Githens, George M., Brooklyn, N. Y. Pawl and ratchet	416,331	Dec. 3	905	69	49	1422
Gladning, Richard S., Bristol, R. I. Nut for screw-bolts	414,519	Nov. 5	517	132	49	845
Gladwin, Frederic E. (See Mighell and Gladwin.)						
Glaister, Newton E., Boston, Mass. Hoof-packing	413,621	Oct. 22	3732		49	530
Glaser, Charles, Baltimore, Md. Making acid phosphate	417,820	Dec. 24	3509		49	1825
Glass, H. L. (See Kendrick, William F., assignor.)						
Glasser, Rudolph, et al. (See Daellenbach, Charles R., assignor.)						
Glasier, Elias C., Rochester, N. Y. Reflector for locomotive head-lights	414,807	Nov. 12	955	247	49	936
Gleason, Elliott P., New York, N. Y. Automatic fire-extinguisher	416,779	Dec. 10	937	218	49	1362
Gleason Manufacturing Company, E. P. (See Gleason, Elliott P., assignor.)						
Gledhill, George, Oswego, Kans. Knee reverse-movement attachment for type-writing machines	412,949	Oct. 8	682	181	49	142
Gleier, John, Manila, Iloilo, P. I. Hammer	417,864	Dec. 24	3571	677	49	1897
Glen Cove Machine Company. (See Auerbach, Ernest F., assignor.)						
Glendening, William H., Ironton, Ohio. Thill-support	414,530	Nov. 5	518	132	49	845
Glendinning, David W. and F. W., assignors to said David W. Glendinning and P. N. Foy, Leavenworth, Kans. Attachment for job-presses	412,816	Oct. 15	1564	408	49	319
Glendinning, Frank W. (See Glendinning, David W. and F. W.)						
Glick, Bernath, Kansas City, Mo., assignor to W. M. Viser, Clarksville, Tenn. Applying detachable labels	418,122	Dec. 24	3274	779	49	1973
Gidden, Charles E., et al. (See Casson, Japhet S., assignor.)						
Gidden, Charles W., Lynn, assignor to J. W. Brooks, trustee, Cambridge, Mass. Apparatus for assembling heel-lifts	414,040	Oct. 29	3345	872	49	687
Gidden, Charles W., Lynn, A. D. Elliott, and G. E. Fellows, Lawrence, assignors to J. W. Brooks, trustee, Cambridge, Mass. Heeling-machine	415,670	Nov. 19	2312	603	49	1201
Gidden, Joseph F., et al. (See Casson, Japhet S., assignor.)						
Gidden, Joseph F., De Kalb, Ill. Horse hay-rake	418,008	Dec. 24	3790	737	49	1940
Gidden, William F. H., Cleveland, Ohio. Bronzing-machine	413,602	Oct. 22	3599	701	49	545
Globe Tissue Paper Company. (See Miller and Newman, assignors.)						
Glover, Wilson, Greenville, S. C. Bale-covering	417,782	Dec. 24	2453	646	49	1875
Gnehm, Robert, and J. Schmid, assignors to Society of Chemical Industry, Basle, Switzerland. Violet coloring-matter	413,048	Oct. 15	1865		49	377
Gnehm, Robert, and J. Schmid, assignors to Society of Chemical Industry, Basle, Switzerland. Blue coloring-matter	413,049	Oct. 15	1866		49	377
Gnehm, Robert, and J. Schmid, assignors to Society of Chemical Industry, Basle, Switzerland. Gray coloring-matter	413,050	Oct. 15	1867		49	377
Gochenouer, Benjamin C., Warsaw, Ind. Liniment	414,769	Nov. 12	890		49	905
Gochenouer, Jacob H., Hermitage, Va. Wire-and-spike-fence machine	418,561	Dec. 31	3633	955	49	2119
Godt, Hermann J., Erieville, Saxony, Germany. Stick or handle holder for brooms, &c.	418,669	Dec. 24	3793	737	49	1940
Goddard, Eldridge J., Anagawick, New Brunswick, Canada. Snow-plow	415,103	Nov. 12	1390	363	49	1022
Goddard, George B., Brockton, Mass. Mallet	414,908	Nov. 12	936	81	49	906
Goddard, George B., Brockton, Mass. Tool-handle	416,564	Dec. 3	666	180	49	1502
Goddard, Isaac, assignor to Goddard & Moses, Richmond, Va. Stem winding and setting watch	414,697	Nov. 12	801	208	49	906
Goddard & Moses. (See Goddard, Isaac, assignor.)						
Goddard, Nate W., et al. (See Smith, Rowell T., assignor.)						
Godfrey, Alexander P., St. Louis, Mo. Wig-holder	415,104	Nov. 12	1392	363	49	1022
Godillot, John P., New York, N. Y. Tripod	414,903	Nov. 12	1106	385	49	964
Goetz, George W., Pittsburgh, Pa. Apparatus for tapping molten metal	414,367	Nov. 5	317	81	49	803
Goetz, George W., assignor to Ore Reduction Company, Pittsburgh, Pa. Plant for the extraction of metals from ores	416,780	Dec. 10	939	254	49	1562
Goetz, George W., assignor to Ore Reduction Company, Pittsburgh, Pa. Extracting gold from ores	416,781	Dec. 10	941		49	1563
Gold, Samuel F., Englewood, N. J. Steam-heater for railway-cars	412,743	Oct. 15	1425	379	49	294
Golden Belt Manufacturing Company. (See Lowe, James L., assignor.)						
Golden, Charles, Chicago, Ill. Combined footstool and cuspidor	415,361	Nov. 19	1818	473	49	1102
Golden Gate Automatic Street and Station Indicator Company. (See Krasky, Lommatzsch, and Kuefer, assignors.)						
Golden State and Miners Iron Works. (See Brown, John W., assignor.)						
Golden State and Miners Iron Works. (See Payson, Alonzo P., assignor.)						
Goldenberg, Alfred, Paris, France. File-cutting machine	413,319	Oct. 22	2287	594	49	466
Goldie, William, West Bay City, Mich. Spike-pointing machine	413,341	Oct. 22	2285	603	49	471
Goldman, West Bay City, Mich. Pointing spikes	413,342	Oct. 22	2287	603	49	471
Goldman, Isaac S., Los Angeles, assignor to H. Tinker and R. B. Davy, San Diego, Cal. Ocean-motor	418,612	Dec. 31	3797	973	49	2134
Goldmann, Philipp, New York, N. Y. Head-protector	414,041	Oct. 29	3346	872	49	688
Goldsmith, William H. (See Hamlin and Goldsmith.)						
Goldthwaite, William F. (See Porter, Daniel K., assignor.)						
Gompers, Samuel J. (See Miller and Gompers.)						
Gonon, Paul E., assignor of one-half to A. Gonget, New York, N. Y. Composition of matter for moldings	414,208	Nov. 5	50		49	748
Gonon, Paul E., assignor to A. H. Gonget, New York, N. Y. Composition of matter for moldings	414,209	Nov. 5	51		49	748
Goodale, Alfred M. (See O'Dwyer, Patrick F., assignor.)						
Goodale, Benjamin N., Saco, Me., assignor to Sawyer Spindle Company, Boston, Mass. Support for spinning-spindles	414,042	Oct. 20	3347	872	49	688
Goodale, Benjamin N., Saco, Me., assignor to Sawyer Spindle Company, Boston, Mass. Support for spinning-spindles	418,333	Dec. 31	3603	863	49	2047
Goodall, Charles, et al. (See Farciot, Charles O., assignor.)						
Goodman, Samuel N., assignor to C. Burton and M. L. Finckel, Philadelphia, Pa. Straight-frame knitting-machine	412,465	Oct. 8	1652	272	49	212
Goodrich, Joseph C., Grinnell, Iowa. Tank-beater	414,398	Nov. 5	319	81	49	803
Goodridge, William M., Highland Park, assignor to Western Electric Company, Chicago, Ill. House telephone-exchange	417,018	Dec. 10	1283	350	49	1632
Goodson, George A., assignor to Minneapolis Electro Matrix Company, Minneapolis, Minn. Matrix-making machine	414,399	Nov. 5	320	81, 82	49	803
Goodson, George A., assignor to Minneapolis Electro Matrix Company, Minneapolis, Minn. Matrix-making machine	414,400	Nov. 5	322	82, 83	49	804
Goodson, George A., assignor to Minneapolis Electro Matrix Company, Minneapolis, Minn. Die for matrix-making machine	414,401	Nov. 5	327	83	49	804

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.
			Spec.	Dr'g.	
Goodson, George A., assignor to Minneapolis Electro Matrix Company, Minneapolis, Minn. Clutch mechanism	414,402	Nov. 5	328	83	49 804
Goodson, George A., assignor to Minneapolis Electro Matrix Company, Minneapolis, Minn. Forming matrices	414,531	Nov. 5	319	132	49 845
Goodson, George A., assignor to Minneapolis Electro Matrix Company, Minneapolis, Minn. Die for matrix-making machines	414,636	Nov. 5	608	182	49 879
Goodson, George A., assignor to Minneapolis Electro Matrix Company, Minneapolis, Minn. Device for converting motion	414,637	Nov. 5	699	182	49 879
Goodwin, Andrew J., New Smyrna, Fla. Impregnating wood, &c., with copper	414,111	Oct. 29	3445		49 710
Goodwin, H. Burdett, et al. (See Shepard, Wilbur L., assignor.)					
Goodwin, Hiram P., et al. (See Hunt, Marshall E., assignor.)					
Goodwin, James S., Emerald, Wis. Building-block	415,967	Nov. 26	2764	792	49 1302
Goodwin, John A., New York, N. Y. Mechanical toy	417,637	Dec. 17	2231	503	49 1223
Goodwin, Julius C., Philadelphia, Pa. Hemming attachment for sewing-machines	415,035	Nov. 12	1500	338	49 1003
Goodwin, Sewell E., et al. (See Shepard, Wilbur L., assignor.)					
Goodwin, Wilbur E., et al. (See Shepard, Wilbur L., assignor.)					
Goodwyne, Robert M. (See Thurmond and Goodwyne.)					
Goodyear Shoe Machinery Company. (See French and Meyer, assignors.)					
Goding, Martin B., Haroldton, Ark. Double side harrow and cultivator	416,909	Dec. 10	1127	308	49 1600
Gorbell, Arabella M., St. John, New Brunswick, Canada. Brush	414,098	Nov. 12	893	209	49 806
Gordon, Albert A. (See Wyman and Gordon.)					
Gordon, Fred W., Philadelphia, Pa. Cleaning hot-blast stoves	417,019	Dec. 10	1284	351	49 1632
Gordon, Fred W., and V. O. Strobel, assignors to Gordon, Strobel & Laurean, Philadelphia, Pa. Blast-furnace top					
Gordon, James, Chicago, Ill. Combined liquor cooler and holder	412,175	Oct. 1	573	149	49 115
Gordon, John C., Monmouth, Ill. Road scraper and grader	413,777	Nov. 26	2474	646	49 1340
Gordon, John C., Monmouth, Ill. Road scraper and grader	413,947	Oct. 15	1863	487	49 376
Gordon, Strobel & Laurean. (See Carlinet, John G., assignor.)	414,522	Nov. 5	321	133	49 845
Gordon, Strobel & Laurean. (See Gordon and Strobel, assignors.)					
Gore, Henry A., and H. W. Ru Tzu, assignors of one-third to E. W. Walker, Goshen, Ind. Carpet-sweeper	416,101	Nov. 26	2977	775	49 1344
Gorham, William J., and A. C. Graham, San Francisco, Cal. Pulley	414,307	Nov. 5	191	47, 48	49 776
Gormally, R. Phillip, et al. (See Cottle, Luther M., assignor.)					
Gorton, Charles, New York, N. Y. Steam-indler	413,658	Oct. 29	2776	721	49 571
Gorton, Henry B., assignor of one-half to E. G. and A. C. Latta, Friendship, N. Y. Gun	417,341	Dec. 17	1613	438	49 1706
Goslee, Odus W., Gastonberry, Conn. Field-marker	416,295	Dec. 3	667	180	49 1502
Goss, Joseph, and W. Varley, Fall River, Mass. Loom for weaving bordered fabrics	414,323	Nov. 5	522	133	49 845
Goss Printing Press Company. (See Goss, Samuel G., assignor.)					
Goss, Samuel G., assignor to Goss Printing Press Company, Chicago, Ill. Vibrating apparatus for ink-line rollers	411,859	Oct. 1	135	32	49 37
Gottfried, Mathew, Chicago, Ill. Mashing-machine	412,955	Oct. 15	1721	451	49 318
Gottfried, Mathew. (See Eickershoff, John H., assignor.)					
Goucher, Albert A., Esch, Pa. Burglar-alarm	414,308	Nov. 5	192	48	49 776
Gouget, Athanasie. (See Gonon, Paul E., assignor.)					
Goughmour, Henry S., assignor to Johnson Company, Johnstown, Pa. Two-part chair for railway-rails	414,153	Oct. 29	3514	914	49 723
Gould, Charles E., assignor to Gould Rolling Machine Company, Leominster, Mass. Machine for making rolled forgings	412,383	Oct. 8	883	230, 231	49 179
Gould, Charles E., assignor to Gould Rolling Machine Company, Leominster, Mass. Die for making rolled forgings	418,562	Dec. 31	3654	955	49 2119
Gould, Lucius D., Newark, N. J. Paint-brush	416,506	Dec. 3	668	180	49 1502
Gould, Lucius D., Newark, N. J. Brush-holder	416,597	Dec. 3	669	181	49 1502
Gould Rolling Machine Company. (See Gould, Charles E., assignor.)					
Gould & Watson Company et al. (See McCarthy, Louis, assignor.)					
Goulding, Alfred, assignor to E. Converse and A. T. Matthews, Worcester, Mass. Saw-guide	418,177	Dec. 31	3066	894	49 2009
Goulding, George P., assignor of one-half to F. W. Vocher, Rochester, N. Y. Cover for ink-bottles	414,699	Nov. 12	805	269	49 906
Gourd, John R., West Quincy, Mass. Needle-threading attachment for looping-hooks	418,613	Dec. 31	3729	974	49 2134
Gourdin, Louis. (See Macbeth and Gourdin.)					
Gove, Sumner H., administrator. (See Baker, John S.)					
Graham, Kingsbrith, Winnipeg, Manitoba, Canada. Sash-fastener	413,659	Oct. 29	2778	721, 722	49 571
Grace, Edward. (See Bourquin, Louis E., assignor.)					
Gracey, James G., St. Louis, Mo. Hydraulic-cylinder lubricator	416,208	Dec. 3	669	181	49 1502
Grady, James, Brooklyn, N. Y. Car wheel and axle	416,161	Dec. 3	80	7	49 1573
Graeb, Paul, Berlin, Germany. Apparatus for cleaning snow from railway-tracks	412,496	Oct. 8	1633	373	49 212
Graf, Carl, Brooklyn, N. Y. Churn	412,350	Oct. 8	684	181	49 142
Grafton, Henry, Willis Road, Kentish Town, county of Middlesex, England. Grab-bucket or digger for excavating	416,836	Dec. 10	1622	376	49 1578
Grafton, William C., assignor of three-fourths to H. F. Hibben, J. B. Hibben, and S. C. Garrard, Topeka, Kan. Hots and colds, weighing scale	415,105	Nov. 12	1393	364	49 1022
Gragg, Zachary T., assignor of one-half to B. J. Head, Cleburne, Tex. Weighing attachment for wagons	418,317	Oct. 31	3273	855	49 2049
Graham, Charles C., Crawfordsville, Ind. Shaft attachment for carriages	413,051	Oct. 15	1867	467	49 377
Graham, Cornelius H., Carle, Pa. Carriage-holers	417,020	Dec. 10	1288	351, 352	49 1633
Graham, Edmund H., Bideford, Me., assignor of one-half to L. Woodbury, Washington, D. C. Loom	416,362	Dec. 3	315	82	49 1431
Graham, Elizabeth R., Pittsburg, Pa. Brush	417,418	Dec. 17	1889	504	49 1757
Graham, James A., assignor to Milwaukee Harvester Company, Milwaukee, Wis. Bundle carrier and dropper for harvesters and grain-blenders	417,418	Dec. 17	1889	504	49 1757
Graham, Marcellus A. (See Gorham and Graham.)					
Graham, Peter D., Corona, Ind. Hand-plow	417,109	Dec. 10	1512	411	49 1677
Graham, Samuel, Lebeck, Mo. Vehicle-standard	416,910	Dec. 10	1129	308	49 1600
Graham, William A., Carle, Pa. Carriage-holers	413,506	Oct. 22	2556	662	49 517
Graichen, Herman. (See Beck and Graichen.)					
Gramm, Karl, Berlin, Germany. Petroleum motor-engine	415,908	Nov. 26	2802	698	49 1279
Grams, John, La Crosse, Wis. Nozzle-holder	414,881	Nov. 12	1077	276	49 828
Granais, Hial S., assignor to H. S. Stow & Wilcox Company, Southington, Conn. Holding attachment for tin-snifts or squaring-shears	413,778	Oct. 29	2950	769	49 664
Grant, Oscar F., Pittsburg, Pa. Fountain-pen	416,293	Dec. 3	213	55	49 1410
Graver, Erwin S., Philadelphia, Pa. Pipe-coupling for car-heaters	418,408	Dec. 31	3411	892	49 2070

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. pr.	Vol.	Page.
Graves, Clinton E., Kansas City, Mo., assignor to Graves Cotton Harvester Company, of New York. Cotton-harvester.....	416,407	Dec. 3	380	102	49	1445
Graves Cotton Harvester Company. (See Graves, Clinton E., assignor.)						
Graves, David L., Louisville, Ky. Meat-tenderer.....	417,821	Dec. 24	3510	661	49	1885
Graves, Dora, administratrix. (See Graves, Varnum D.)						
Graves, John. (See Van Wageningen and Graves.)						
Graves, John, Brooklyn, assignor of one-half to G. Van Wageningen, New York, N. Y. Sheet-metal mantle.....	417,914	Dec. 24	2640	697	49	1911
Graves, Varnum D., deceased; D. Graves, Charleston, administratrix and assignor to J. B. Carter, Ashmore, Ill. Brick-machine.....	417,930	Dec. 17	1735	467	49	1729
Graves, William D., Jr., Presque Isle, Me. Window-screen.....	415,453	Nov. 19	1963	510	49	1131
Gray, Dennis. (See Taylor, John S., assignor.)						
Gray, George F., San Francisco, Cal. Concrete mixing and delivering wagon.....	415,411	Nov. 19	1887	492	49	1116
Gray, James, Chumptonville, Cal. Ore-concentrator.....	415,454	Nov. 19	1965	510	49	1132
Gray, James D., Arlington, Va., assignor to L. M. Berry, Reading, Pa. Governor and cut-off valve gear.....	417,170	Dec. 10	1514	412	49	1677
Gray, Oliver D., New York, N. Y. Educational globe.....	418,455	Dec. 31	3422	911	49	2023
Gray, Philander R., Jr., Elizabeth, N. J. Fluid-trap.....	417,171	Dec. 10	1516	412	49	1678
Gray, E. A. (See Sylvester, Isaac, assignor.)						
Gray, Richard, Bloomington, Ill. File.....	414,709	Nov. 12	807	209	49	967
Gray, Richard, Bloomington, Ill. Metal pile.....	415,037	Nov. 12	1309	339	49	1063
Gray, Richard E., Muncy, Pa. Current water-wheel.....	417,921	Dec. 10	1269	352	49	1633
Graziana, Battista. (See Vercelli and Graziana.)						
Gresley, Orrin, Owatonna, Minn. Support for wash-tubs.....	413,181	Oct. 22	2073	510	49	424
Green, Bruce, High Holborn, county of Middlesex, England. Coin-operated optometer.....	416,599	Dec. 3	671	182	49	1503
Green, Charles H. (See Baker and Green.)						
Green, Charles J., Placerville, Cal. Water-wheel.....	417,865	Dec. 24	2572	678	49	1897
Green, George. (See Ten Eyck and Green.)						
Green, George R., assignor to Spiral Weld Tube Company, East Orange, N. J. Machine for making spiral pipe.....	414,534	Nov. 5	535	133	49	846
Green, James A. (See Green, William R. and J. A.)						
Green, James W., Allina, Oreg. Saw-filing machine.....	415,106	Nov. 12	1394	364	49	1023
Green, John, Elmira, Mich. Bob-sleigh.....	415,196	Nov. 19	1561	492	49	1053
Green, Paul M. (See Babcock, Ezra S., assignor.)						
Green, Thomas C., South Haven, Mich. Body-warmer.....	412,744	Oct. 15	1427	373	49	2094
Green, William R. and J. A., Kingston, Tex. Cultivator and plauter combined.....	418,178	Dec. 31	3067	804	49	2000
Greene, William T. (See Peters and Greene.)						
Greene, Forrest D., et al. (See Leighton, Carleton F., assignor.)						
Greene, Francis V., assignor to Barber Asphalt Paving Company, New York, N. Y. Apparatus for reducing natural or artificial bituminous rock.....	415,167	Nov. 12	1525	393	49	1039
Greene, George V., Brooklyn, N. Y. Fuching attachment for sewing-machines.....	413,600	Oct. 29	2779	722	49	571
Greene, Levi R., Boston, Mass. Pole for electric wires.....	415,324	Nov. 19	1793	457	49	1093
Greene, Levi R., Boston, Mass. Pole for electric wires.....	415,325	Nov. 19	1763	458	49	1094
Greene, William A., Ocean Grove, assignor of one-half to E. R. Cahoon, Newark, N. J. Cooking-stove.....	411,918	Oct. 1	296	53	49	42
Greenleaf, Miller T., Quincy, Ill. Safety device for elevators.....	418,010	Dec. 24	2794	737	49	1940
Greenwood, George D., and J. G. Jorg, Baltimore, Md. Automatic railway-signal.....	417,022	Dec. 10	1230	353	49	1633
Greenwood, Peter F., Richmond, Va. Horsehoe-machine.....	412,497	Oct. 8	1054	274	49	213
Greer, John E. (See Hinton, Charles W., assignor.)						
Gregg, Leslie A., assignor of one-half to F. Plank, San José, Cal. Orchard-cultivator.....	413,443	Oct. 22	2460	639	49	498
Gregory, Charles C., Peak's Mill, Ky. Plow.....	414,701	Nov. 12	808	210	49	907
Gregory, Charles H. (See Lilly, Francis G., assignor.)						
Gregory, George. (See Miller and Gregory.)						
Gregory, George H., Brooklyn, assignor to C. S. Upton, New York, N. Y. Gas-governor.....	414,525	Nov. 5	539	136	49	847
Gregory, George H., Brooklyn, assignor of one-half to C. S. Upton, New York, N. Y. Gas-regulating burner.....	414,638	Nov. 5	703	182	49	879
Greider, Jacob M. (See Minnich, Simon L., assignor.)						
Greivenkamp, John, and O. Seblecher, Cincinnati, Ohio. Automatic ink-feeding device.....	414,639	Nov. 5	704	183	49	879
Graham, James, Manchester, county of Lancaster, assignor to Vacuum Brake Company, (limited,) London, England. Valve apparatus for vacuum railway-brakes.....	415,968	Nov. 26	2765	722	49	1302
Graham, James, Manchester, county of Lancaster, assignor to Vacuum Brake Company, (limited,) London, England. Road-racing for vacuum railway-brakes.....	417,321	Dec. 17	1737	467	49	1730
Greville-Williams, Rupert, assignor to Albany Coal Tar Dye and Chemical Company, Albany, N. Y. Making dyes.....	412,148	Oct. 1	531	.....	49	107
Greville-Williams, Rupert, assignor to Albany Coal Tar Dye and Chemical Company, Albany, N. Y. Making dyes.....	412,149	Oct. 1	531	.....	49	107
Greville-Williams, Rupert, assignor to Albany Coal Tar Dye and Chemical Company, Albany, N. Y. Making azo-dyes.....	416,145	Nov. 26	3058	.....	49	1359
Greville-Williams, Rupert, Albany, N. Y., assignor to Albany Coal Tar Dye and Chemical Company, of New York. Making azo-dyes.....	417,207	Dec. 10	1568	.....	49	1658
Griffin, Dnane D., Westfield, Mass. Braiding-machine.....	417,172	Dec. 10	1317	413	49	1678
Griffin, George W., assignor of one-half to P. C. Hancock, Franklin Falls, N. H. Saw-blade.....	412,176	Oct. 1	574	150	49	116
Griffin, Patrick H., Buffalo, N. Y. Gage.....	413,779	Oct. 29	2951	770	49	604
Griffin, Samuel, Kingston Iron Works, Bath, county of Somerset, England. Operating gas-engines.....	412,883	Oct. 15	1622	424	49	329
Griffin, Thomas. (See Edwards and Griffin.)						
Griffin, Thomas. (See Todd and Griffin.)						
Griffin, Thomas A., Chicago, Ill. Foot-guard for railways.....	414,210	Nov. 5	52	11	49	748
Griffith, Allen A., Jr., et al. (See Presser, Treat T., assignor.)						
Griffith, Isaac C. (See Magruder, Griffith, and Swafford.)						
Griffith, Thomas R., Wilkes-Barre, Pa. Mechanical movement.....	411,960	Oct. 1	265	68, 69	49	54
Griffiths, James H., Kingmill, assignor of one-half to G. A. Tuttle, South Dorchester, and D. A. Sherb, Plymouth, Ontario, Canada. Saw.....	413,733	Oct. 29	2913	758	49	597
Griggs, Arthur E., et al. (See Elkins, William H., assignor.)						
Griff, Frederick, Philadelphia, Pa. Package for cut tobacco.....	415,633	Nov. 19	2264	500	49	1191
Grimes, Charles D. (See Patterson and Grimes.)						
Grimes, Charles D. (See Patterson, Grimes, and Rensch.)						
Grimes, Charles D., assignor to National Cash Register Company, Dayton, Ohio. Ticket-reel.....	414,403	Nov. 5	330	83	49	805
Grimm, Henry J., Cleveland, Ohio. Combined match safe and box.....	414,702	Nov. 12	809	210	49	907

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Grimm, Paul H., assignor of one-half to W. Duryea, Glen Cove, N. Y.; W. Duryea, O. N. Payne, and L. D. Duryea executors and W. Duryea, deceased. Journal-box	418,193	Dec. 24	2975	779	49	1973
Grimm, Simon H., Paulton, Pa. Metallic vessel	414,311	Nov. 5	52	11	49	748
Grinnell, Amos L., Campbell, Iowa. Elevated cable railway and car	416,320	Dec. 3	99	38	49	1387
Griscom, Isaac W., Woodbury, N. J. Portable dark-room	413,715	Oct. 29	3261	747	49	587
Griscom, William, Jr. (See Bradbury and Griswold.)						
Griswold, Alanson B., Troy, N. Y. Machine for forming eyes on wire hands	418,456	Dec. 31	3484	{ 911 912 }	49	3084
Griswold, Frank B., and C. D. Randle, Troy, N. Y. Machine for bending wire	418,518	Dec. 31	3572	{ 933 934 }	49	2104
Griswold, John W., Troy, N. Y. Bale-tie	418,457	Dec. 31	3489	912	49	3085
Griswold, John W., Troy, N. Y. Bale-tie	418,458	Dec. 31	3489	913	49	3085
Griswold, John W., Troy, N. Y. Straightening wire	418,459	Dec. 31	3490	913	49	3085
Griswold, Lewis F., assignor to C. Parker Company, Meriden, Conn. Suspension device for hanging lamps	413,780	Oct. 29	2923	770	49	604
Grob, William, Fremont, Ohio. Piston-rod packing	416,658	Nov. 26	3501	737	49	1339
Grog, John M., Canton, Ohio. Combined chair and lounge	416,837	Dec. 10	1027	976	49	1578
Groghan, Louis J. (See Abmond and Groghan.)	412,919	Oct. 15	1678	438	49	339
Grogan, William L. (See Bulloch and Grogan.)						
Grogz, Sylvester, St. Joseph, Mo. Desk	414,404	Nov. 5	332	84	49	805
Groos, Clemens, Riverside, N. J. Hair-tonic	413,395	Oct. 22	2492		49	486
Groschean, Louis J. (See Abmond and Groschean.)						
Gross, August. (See Klinik, Pinkowski, and Gross.)						
Gross, John. (See Tait and Gross.)						
Grosvenor, Royal W., assignor of one-half to S. Robins, Cincinnati, Ohio. Rewinding-shaft for paper-rod machines	416,782	Dec. 10	943	254	49	1563
Growth, Henry, assignor of three-fourths to C. W. Kennedy and R. F. Rankin, Philadelphia, Pa. Electric motor	412,177	Oct. 1	575	150	49	116
Groth, William, San Francisco, Cal., assignor of one-third to T. S. Constantine, New York, N. Y. Stamp-canceling and postmarking machine	416,674	Dec. 3	786	215	49	1526
Grove, David, Ellsworth, Ill. Reel for winding wire	414,699	Nov. 12	857	948	49	930
Grove, Frank G., Luray, Va. Link-lifter	417,023	Dec. 10	1292	353	49	1634
Grove, William H., assignor of one-half to C. E. Dresbach, Circleville, Ohio. Duplex force pump	416,634	Nov. 26	2866	740	49	1322
Groves, Hilman C., Nashville, Kans. Bells for telephones	416,303	Dec. 3	316	82	49	1431
Groves, Roscoe J. (See White, Charles N., assignor.)						
Groves, W. H., et al. (See Miles, Jackson B., assignor.)						
Grubbs, Sidney B., Munn, Iowa. Fence-guard	414,703	Nov. 12	810	210	49	908
Gruehnberg, Emil, Des Moines, Iowa. Violin	416,726	Dec. 10	864	233	49	1544
Grunewald, Augustus H., Chicago, Ill. Brush	412,384	Oct. 8	885	231	49	180
Grunsonwerk. (See Hoffmann, Carl, assignor.)						
Gschwendner, Georg, Cincinnati, Ohio. Cigar	411,806	Oct. 1	44	13	49	12
Guerrant, George M., New York, N. Y. Engraving-machine	414,526	Nov. 5	530	{ 136 137 }	49	847
Gnest, Joseph, Pittsburg, Pa. Rolling force-bars	416,675	Dec. 3	789	216	49	1527
Gnial, Joseph M., Odessa, Russia. Metallic package	414,822	Nov. 12	1078	276	49	1356
Guilb, George M., assignor to H. E. Guilb, Boston, Mass. Piano tuning-pin	417,674	Dec. 17	2379	604	49	1832
Guilb, H. E. (See Guilb, George M., assignor.)						
Guilbrandsen, Ole G. (See Hansen and Guilbrandsen.)						
Gump, Jacob, Baltimore, Md. Buckle	413,052	Oct. 15	1868	487	49	377
Gunkel, P. H., et al. (See Norcross, Linnaeus B., assignor.)						
Gunckel, Winifred O., Terre Haute, Ind. Machine for cutting square holes	417,174	Dec. 10	1520	414	49	1678
Gunn, William D., Wesson, Miss. Portable sawing-machine	417,173	Dec. 10	1519	413	49	1678
Günzel, Charles, assignor of one-half to J. F. Günzel, Newark, N. J. Curtain-fixture	416,900	Dec. 3	673	182	49	1503
Günzel, J. Frederick. (See Günzel, Charles, assignor.)						
Guthrie, George A., New York, N. Y. Fish-globe	415,506	Nov. 19	2055	533	49	1150
Gurney Company, E. & C. (See Steedman, Partridge, and Turpin, assignors.)	415,634	Nov. 19	2063	591	49	1192
Gurney, Edward, C. Levey, and C. W. Peniston, Toronto, Ontario, Canada; said Levey and Peniston assignors to said Gurney. Radiator	418,011	Dec. 24	2795	737	49	1941
Gusler, Perry E. (See Reynolds, John E., assignor.)						
Gustafson, Axel R., Ashland, Wis. Thrashing-machine	417,175	Dec. 10	1522	414	49	1679
Gustlin, Abram, Boone, Iowa. Churn	414,312	Nov. 5	53	12	49	746
Gutenkunst, Charles A. (See Gutenkunst, William and C. A.)						
Gutenkunst, William and C. A. Milwaukee, Wis. Hay-carrier	413,781	Oct. 29	2955	770	49	605
Guthrie, James F., Jr., Somerville, Mass. Hay-carrier						
Haarlander, August, assignor to Standard Manufacturing Company, Allegheny, Pa. Manufacture of cast-iron enameled pipe	418,643	Dec. 31	3775	985	49	2143
Hase, Edwin, Philadelphia, Pa. Lining for metal cans or jars	417,942	Dec. 17	1616	439	49	1707
Habbert, Elmo H. A., Randolph, N. J., and W. E. Beckmann, New York, N. Y. Machine for sewing on buttons	418,124	Dec. 24	2926	779	49	1974
Haberkorn, Theodore H., Fort Wayne, Ind. Valve mechanism for air-brakes	413,322	Oct. 22	9174	566	49	443
Haberkorn, Theodore H., Fort Wayne, Ind. Governor for air-brakes	413,323	Oct. 22	9176	566	49	444
Haberkorn, Theodore H., Fort Wayne, Ind. Brake for locomotives	413,324	Oct. 22	9178	566	49	444
Haberkorn, Theodore H., Fort Wayne, Ind. Combination-valve for air-brakes	417,721	Dec. 24	2353	621	49	1836
Hackett, William C., Greenville, Miss. Bale removing and heading-up attachment for presses	415,909	Nov. 26	2963	694	49	1280
Hackley, Samuel B., Jr., San Francisco, Cal. Hydrant-coupling	418,513	Dec. 31	3576	938	49	2104
Hackney, Herbert. (See Houston and Hackney.)						
Haddock, Indson F. (See Terrill, Delaney E., assignor.)						
Haentz, Charles H. (See Reiff, William H., assignor.)						
Hagemann, Otto C. (See Donatier and Hagemann.)						
Hagen, Ferdinand J., New York, N. Y. Cigar-hunching machine	411,919	Oct. 1	207	53	49	42
Hagen, Ferdinand J., New York, N. Y. Cigar-hunching machine	415,943	Nov. 26	2727	{ 713 714 }	49	1294

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. st.	Vol.	Page.
Hagerman, Clyde, <i>et al.</i> (See Miles, Myron, assignor.)						
Hagerman, John D., <i>et al.</i> (See Miles, Myron, assignor.)						
Hagerty, Thomas F., San Francisco, Cal. Concrete pavement.	413,278	Oct. 22	2217		49	492
Hagenmacher, Jakob F., Zurich, Switzerland. Loom.	413,299	Oct. 22	2257	586	49	459
Hahn, Isaac, Birdsborough, Pa. Grave-protector.	415,107	Nov. 12	1395	364	49	1023
Haigh, Allen, <i>et al.</i> (See Matheson, Robert, assignor.)						
Haines, Daniel A., Pittsburg, Pa. Machine for cutting ice.	418,351	Dec. 31	3333	870	49	2053
Haines, George B., assignor to One-half to E. T. Brooks, Chicago, Ill. Lock for shut-off valves.	414,154	Oct. 29	3515	915	49	723
Haines, George W., assignor to Stockton Combined Harvester and Agricultural Works, Stockton, Cal. Header and thrasher.	413,139	Oct. 15	2001	523	49	403
Haines, Joseph T. (See Broadhead and Haines.)						
Haines, Robert D., Corning, N. Y. Glass-mold.	417,176	Dec. 10	1323	{ 414 } 415	49	1679
Haileip, John P., Salem, Va. Pen or pencil holder.	413,366	Oct. 22	2264	612	49	478
Hake, Simon, Fort Atkinson, Wis. Washing-machine.	415,865	Nov. 25	2597	679	49	1305
Hallebrand, Franz, assignor to G. Heberlein, Solingen, Prussia, Germany. Button-hole-cut-ter.	414,923	Nov. 5	536	137	49	848
Hallerstadt, Louis, <i>et al.</i> (See De Tangle, Henry, assignor.)						
Haldeman, John R., Bloomington, Ill. Railway-rail.	413,073	Oct. 15	1869	488	49	377
Haldy, Walter L., Cincinnati, O. Self-feeding journal-bearing.	412,351	Oct. 8	665	181	49	142
Hale, Frank A., <i>et al.</i> (See Smith, Henry P., assignor.)						
Hale, George C., Kansas City, Mo. Harness-suspension device.	414,084	Oct. 1	440	114	49	88
Hale, Henry S., Philadelphia, Pa. Car-seat.	417,822	Dec. 24	2510	661	49	1885
Hale, Henry S., Philadelphia, Pa. Car or other seat.	417,923	Dec. 24	2513	{ 661 } { 662 }	49	1886
Hale, James W., Newburyport, Mass. Valve mechanism for wash-basins.	416,221	Dec. 3	100	29	49	4389
Halgrimsen, Ole. (See Bakke and Halgrimsen.)						
Hall, Alexander W., New York, N. Y. Telephone-diaphragm.	413,782	Oct. 29	2956	771	49	605
Hall, Benjamin M., Tate, and M. R. Hall, Collins, Mo. Device for supplying water and sand to stone-sawing machines.	414,829	Nov. 5	537	138	49	848
Hall, Clark, and W. H. Wright, East Farnham, Quebec, Canada. Sugar-sap evaporator.	415,635	Nov. 19	2366	591	49	1192
Hall, Frank L. (See Conch, Joel, assignor.)						
Hall, Frederick R. (See Storrs, Charles F., assignor.)						
Hall, George F., Newark, N. J. Tool-clamp.	415,969	Nov. 26	2767	732	49	1302
Hall, George F., assignor of one-half to E. R. Carlucci, Newark, N. J. Rocking-chair.	413,140	Oct. 15	2004	522	49	404
Hall, James T., Chicago, Ill. Surface cattle-guard.	416,014	Dec. 24	2798	738	49	1941
Hall, James T., assignor to National Surface Guard Company, Chicago, Ill. Surface cattle-guard.	416,013	Dec. 24	2797	738	49	1941
Hall, John, Boston, Mass. Sounding device for the holds of vessels.	411,808	Oct. 1	45	14	49	12
Hall, Joseph B. (See Richards and Hall.)						
Hall, Lucius M., Montreal, Quebec, Canada. Trousers-stretcher.	418,015	Dec. 24	2799	738	49	1941
Hall, Maxey R. (See Hall, Benjamin M. and M. R.)						
Hall, Osborn B., Malden, Mass. Metal post.	412,428	Oct. 8	1056	275	49	213
Hall, Osborn B., Malden, Mass. Metal post.	413,716	Oct. 29	2263	747	49	587
Hall, Osborn B., Malden, Mass. Metal post.	413,364	Nov. 19	1845	451	49	1108
Hall, William R., Lancaster, Pa. Breech-loading fire-arm.	414,313	Nov. 5	54	12	49	748
Hallock, Daniel Y., Southold, N. Y. Device for feeding and watering poultry.	414,405	Nov. 5	533	81	49	805
Halsted, Charles D., <i>et al.</i> (See Blackstone, Louis, assignor.)						
Halstead, Charles, New York, N. Y. Culinary vessel.	412,965	Oct. 1	442	115	49	89
Halsted, Charles B., Humboldt, Kans. Combined fence and insect-destroyer.	413,507	Oct. 22	2258	693	49	517
Halsted, James M. (See Melius, Lyman B., assignor.)						
Hamaker, Clark, Bonanza, Oreg. Trip-hook for hay-elevators.	411,860	Oct. 1	127	33	49	27
Hamay, James T., Wilkinsburg, assignor to Union Switch and Signal Company, Pittsburg, Pa. Signal apparatus.	412,178	Oct. 1	577	{ 150 } { 151 }	49	116
Hamay, James T., Wilkinsburg, assignor to Union Switch and Signal Company, Pittsburg, Pa. Detector-bar clip.	414,862	Nov. 12	1038	268	49	951
Hamay, James T., Wilkinsburg, assignor to Union Switch and Signal Company, Pittsburg, Pa. Ground-lever for switches and signals.	416,162	Dec. 3	22	7	49	1373
Hamay, James T., Wilkinsburg, assignor to Union Switch and Signal Company, Pittsburg, Pa. Anti-friction guide for signal-rods.	416,763	Dec. 10	944	254	49	1563
Hamay, James T., Wilkinsburg, assignor to Union Switch and Signal Company, Pittsburg, Pa. Foundation for signal-rods for draw-bridges.	417,177	Dec. 10	1224	415	49	1679
Hamay, James T., Wilkinsburg, assignor to Union Switch and Signal Company, Pittsburg, Pa. Interlocking switch and signal.	415,168	Nov. 12	1227	313	49	1039
Hamlin, James, Brooklyn, N. Y. Electric synchronizing device for clock-pendulums.	416,125	Dec. 24	2779	740	49	1974
Hamlin, Albert G., assignor of one-half to E. Ritchie, Big Rapids, Mich. Heating-drum.	416,601	Dec. 3	674	162	49	1503
Hamlin, Stephen M., New Bedford, and W. H. Goldsmith, Fall River, assignors to said Goldsmith and J. S. Wright, Duxbury, Mass. Traverse-motion for spooling-machines.	417,824	Dec. 24	2515	662	49	1887
Hambuyer, Ephraim, Detroit, Mich. Chisel for forming mortises for drawer-locks.	415,636	Nov. 19	2267	591	49	1192
Hambuyer, Ephraim, Detroit, Mich. Soup dish or cup.	415,816	Nov. 26	2525	660	49	1251
Hambuyer, Ephraim, assignor of one-half to R. Stevens, Jr., Detroit, Mich. Locking device for door-knobs.	413,826	Oct. 29	3018	755	49	617
Hamel, Henry P. (See Reynolds, John H., assignor.)						
Hamilton, George D., Elkhart, Mich. Bolt attachment for stoves.	412,252	Oct. 8	687	181	49	143
Hamilton, James E., assignor to Hamilton Manufacturing Company, Fall River, Wis. Cutting-stick for paper-cutting machines.	416,602	Dec. 3	675	163	49	1503
Hamilton, James K., Brooklyn, Pa. Harness-loop.	413,717	Oct. 29	2264	747	49	587
Hamilton Manufacturing Company. (See Hamilton, James E., assignor.)						
Hamilton, William A., Philadelphia, Pa. Soap dish or cup.	412,499	Oct. 8	1057	275	49	213
Hamlin Car Wheel and Manufacturing Company. (See Hamlin, Mahlon, assignor.)						
Hamlin, Europe W., Wilmington, Ohio. Gas-enricher.	411,509	Oct. 1	46	14	49	12
Hamlin, Mahlon, Catawissa, Pa. assignor to Hamlin Car Wheel and Manufacturing Company, of Pennsylvania. Car axle journal.	414,530	Nov. 5	534	136	49	848
Hamlin, William P., Rogers, Ark. Manufacture of wine.	412,305	Oct. 22	2261	840	49	189
Hammack, Martin V., Knoxville, Tenn. Clamp.	416,614	Dec. 31	3730	974	49	2134
Hammerstrom, Olof, Worcester, Mass. Velocipede.	417,463	Dec. 17	1966	530	49	1778
Hammerud, John, Portsmouth, Iowa. Soap dish or cup.	415,714	Nov. 26	2287	622	49	1224
Hammerley, William A. L., Leek, county of Stafford, England. Machine for fulling, scouring, cleaning, and beetling yarns and textile fabrics.	414,810	Nov. 12	958	{ 249 } { 250 }	49	937
Hammitt, Frederick W., <i>et al.</i> (See Floyd, Byron B., assignor.)						
Hammond, Charles A., Lynn, and R. D. Sturges, Boston, Mass. Steam-coupling.	412,600	Oct. 8	1217	390	49	245
Hammond, Fred C., assignor of one-half to W. L. Whitcomb, Springfield, Vt. Beam-scales.	416,391	Dec. 3	162	41	49	1400

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & C.	Vol.	Page.
Hammond, William. (See Healea, John and G. G., assignors.)						
Hampton, Robert I., Athens, Ga. Coupling for railway steam-heating pipes	414,640	Nov. 5	705	183	49	880
Hance, William A. (See Stover and Hance.)						
Hance, William A., assignor to Warner Manufacturing Company, Freeport, Ill. Coffee-mill	413,330	Oct. 22	9285	595	49	465
Hance, William A., assignor to Warner Manufacturing Company, Freeport, Ill. Coffee-mill	413,331	Oct. 22	9289	595	49	466
Hancock, John, Philadelphia, Pa. Spring bed-bottom	415,435	Nov. 19	1966	510	49	1132
Hancock, John I., Monroe, Pa. Sled	413,934	Oct. 15	1670	468	49	378
Hancock, Parker C. (See Griffin, George W., assignor.)						
Hand, Porter B., Hardsborough, Miss. Bale-lic	412,179	Oct. 1	578	151	49	116
Hand, William F., Bay City, assignor of one-half to A. Wildman, East Saginaw, Mich. Low-water alarm	417,675	Dec. 17	2280	604	49	1232
Hanel, Reinhold, Lelpse, Saxony, Germany. Rolling-pen	417,084	Dec. 10	1253	353	49	1634
Hansbury, Henry M., Hot Springs, Ark. A wheel-reel	413,995	Oct. 29	3184	831	49	654
Handy, Edwin R. and T. H. Manville, R. I. Machine for splitting double piled fabrics	417,915	Dec. 24	2641	697	49	1911
Handy, Thomas H. (See Handy, Edwin R. and T. H.)						
Hanford, Frederick C., et al. (See Nickels, John, assignor.)						
Hanford, Orrin A., Bloomington, Ill. Noctite fastener	414,406	Nov. 5	334	84	49	806
Hangcock, Jacob, Newark, N. J. Hand planing-machine	413,444	Oct. 22	2462	639	49	498
Hauka, Christian, Springfield, Ohio. Swaging-bench for iron fences	414,770	Nov. 12	899	333	49	925
Hauley, John, Minneapolis, Minn. Ash-sifter	413,936	Oct. 29	3185	831	49	655
Hanley, Patrick F., Homestead, Pa. Rolling-mill	413,141	Oct. 15	2005	523	49	404
Hanley, Patrick F., Homestead, Pa. Rolling-mill	417,484	Dec. 17	1989	530	49	1778
Hanlon, John, New York, N. Y. Apparatus for manufacturing illuminating and heating gas	418,016	Dec. 24	2800	739	49	1941
Hanlon, John, New York, N. Y. Apparatus for the manufacture of illuminating-gas	418,017	Dec. 24	2802	740	49	1942
Hanlon, John, New York, N. Y. Apparatus for the manufacture of gas	418,018	Dec. 24	2804	740	49	1942
Hanlon, John, New York, N. Y. Apparatus for the manufacture of gas	418,015	Dec. 31	3731	974	49	2134
Hann, Chester K., Columbus, Ohio. Window-screen	418,136	Dec. 24	2800	770	49	1974
Hannaba, Fred C., assignor of one-half to J. Jackson, Kenosha, Wis. Rack for crabs	416,102	Nov. 26	2278	776	49	1344
Hanning, James B., Cove Castle, Loch Long, county of Dumbarton, Scotland. Apparatus for applying chlorine to the extraction of gold from ores	412,610	Oct. 8	1219	320	49	246
Hannay, James B., Cove Castle, Loch Long, county of Dumbarton, Scotland. Apparatus for liquefying chlorine	418,019	Dec. 24	2807	741	49	1943
Hanscom, Abbie P., executrix. (See Hanscom, William W.)						
Hanscom, William W., deceased; A. P. Hanscom, San Francisco, executrix and assignor to H. D. Bacon, Oakland, Cal. Air-brake relief-valve	416,603	Dec. 3	676	183	49	1504
Hansen, James J., Brooklyn, N. Y. Liquid manure	415,946	Nov. 19	1639	522	49	1067
Hansen, Christian A. and O. G. Gulbrandsen, Christiania, Norway. Machine for making horse-shoe-nails	413,937	Oct. 29	3186	833	49	655
Hansen, Mads L., assignor of one-half to F. Armstrong, Bridgeport, Conn. Electric meter	410,604	Dec. 3	678	183	49	1504
Hansing, Siegfried, New York, N. Y. Stringing planes	416,458	Dec. 3	435	134	49	1461
Hanson, Hans M., assignor of one-half to J. H. Kennedy, St. Paul, Minn. Pole-coupling	413,036	Oct. 15	1673	489	49	378
Hanson, Henry G., Trevor, Wis. Mop	416,163	Dec. 3	93	7	49	1373
Hapgood, Lyman S. (See Robinson, John R., assignor.)						
Harbaugh, Howard E., and G. W. Midgley, assignors to S. B. Wilkins Company, Rockford, Ill. Machine for sewing knit fabrics	415,778	Nov. 26	9474	647	49	1941
Harbaugh, Solomon, Geneva, Nehr. Hen-house	412,500	Oct. 8	1638	276	49	214
Harden Star Lewis & Sinclair Company. (See Tarbutt, Percy, assignor.)						
Hardeberg, W. A. (See Brownson, Ralph, assignor.)						
Hartner, Charles N. (See Sargent, Longley L., assignor.)						
Harter, Victor A., Brooklyn, N. Y. Fire-extinguisher	416,838	Dec. 10	1028	276	49	1579
Hartie, Agnes, Leetonia, Ohio. Combined cabinet, commode, wardrobe, and invalid-chair	414,319	Nov. 5	195	48	49	777
Hartin, John M., Gast, Ky. Vehicle-brake	414,904	Nov. 12	1108	285	49	964
Hartling, Eliza J. (See Fairchild, William J., assignor.)						
Hartison, Dock C. W., Eagle Lake, Tex. Cotton or corn planter	412,233	Oct. 8	688	182	49	143
Hartwick, Harry, A. M. Ulmer, and F. Fowler, Philadelphia, Pa. Yarn-reeling machine	413,055	Oct. 15	1671	488	49	378
Hardwick, Sammie W. (See Elam, Thomas, Crawford, and Hardwick.)						
Hardwick, Sammie W. (See Elam, Thomas, and Hardwick.)						
Hardwick, William, Erie, Pa. Low-water alarm	418,620	Dec. 24	2809	742	49	1943
Hardwick, James K., Marshall, N. C. Device for lubricating, cooling, and cleaning car-journals	415,910	Nov. 26	2664	699	49	1290
Hardy, Francis A. (See Currin, John, assignor.)						
Hargreaves, Thomas. (See Mitchell and Hargreaves.)						
Harkey, Robert L., and G. W. Burgess, Russellville, Ark. Tug-buckle	416,222	Dec. 3	102	30	49	1329
Harkness, William, New York, N. Y. Automatic sprinkler nozzle or valve for fire-extinguishers	417,625	Dec. 10	1294	354	49	1634
Harkan, James W., Kansas City, Mo. Construction of retaining walls	417,961	Oct. 1	967	69	49	54
Harnan, Stephen S., New York, N. Y. Device for stringing and carrying fish	413,661	Oct. 29	2741	724	49	572
Harmon, Eugene, Rippey, Iowa. Halter	417,638	Dec. 17	2632	593	49	1823
Harrach, Philip J., assignor of one-third to S. Lehman, Bloomfield, Ind. Shaft-holder for vehicles	412,666	Oct. 1	443	115	49	89
Harrison, William H., Kansas City, Mo. Construction of retaining walls	413,718	Oct. 29	2663	747	49	588
Harrington, Gardner P., et al. (See Darling, William H., assignor.)						
Harrington, May E., Oakland, Cal. Mustache-guard	411,988	Oct. 1	304	79	49	62
Harrington & Richardson Arms Company. (See Caldwell, Homer M., assignor.)						
Harrington, Samuel H., Hingham, N. Y. Aisle-box lid	417,943	Dec. 17	1616	439	49	1707
Harris, Ben. E. (See Foote, George B., assignor.)						
Harris, Charles R., assignor to himself and W. Silvermann, Williamsport, Pa. Buckle. (Release)	11,039	Nov. 5	729	196	49	890
Harris, George W. H., Kansas City, Mo. Tug-buckle	413,754	Oct. 29	2614	738	49	587
Harris, Green B., Mooresville, Tex. Post-anger	413,343	Oct. 22	2328	603	49	472
Harris, Joas A., O'Neill, Nehr. Cultivator attachment	416,727	Dec. 10	1027	283	49	1548
Harris, John B., Eutaw, Ala. Rotary engine	415,456	Nov. 19	1967	511	49	1132
Harris, Levi B., Waresville, Pa. Gate-coupling	414,321	Nov. 5	140	138	49	849
Harris, Louis J., Boston, Mass. Hinge	415,621	Dec. 24	2810	742	49	1943
Harris, Malcolm L., assignor of one-half to T. W. Miller, Chicago, Ill. Valve-actuating device	415,671	Nov. 19	2319	605	49	1202
Harris, William, Auburn, Mass. Mechanism for attaching sheets of card-clothing together and to the grinding-cylinder	413,445	Oct. 22	2463	640	49	409

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & C.	Vol.	Page.
Harris, William E., assignor to B. B. Purdy, New York, N. Y. Separating solder from tinned iron	416,408	Dec. 3	384		49	1446
Harris, William H., Grand Rapids, Mich. Device for securing boot-leg tops to trousers	416,676	Dec. 3	790	216	49	1527
Harris, Willie W., Sioux City, Iowa. Bullet-mold	413,939	Oct. 29	3193	503	49	656
Harrison, Alfred M., Dayton, assignor to J. F. Pfeffer, Cincinnati, Ohio. Cash register and indicator	412,611	Oct. 8	1221	321 322 341	49	246
Harrison, Eugene L., Ashland, Wis. Alarm attachment for gas-burners	414,853	Nov. 12	1079	377	49	959
Harrison, George P. (See Campbell and Harrison.)						
Harrison, James B., San José, Cal. Derrick	412,087	Oct. 1	444	115	49	89
Harrison, James R. (See Weber and Harrison.)						
Harrison, William. (See Weber and Harrison, assignors.)						
Harry, Charles F. R. (See Harry, Isabella L. and C. F. R.)						
Harry, Isabella L. and C. F. R., West Salem, Ohio. Car-coupling	418,616	Dec. 31	3732	975	49	2135
Hartman, James, Harris, and G. Cooksey, Galt, Mo. Drag-rake	412,745	Oct. 15	1439	373	49	295
Harsh, Samuel E., assignor of one-half to J. M. Harter, Wabash, Ind. Check-holder and check-spreader	415,038	Nov. 12	1304	340	49	1004
Harsh, Leslie R., Chicago, Ill. Adjustable stand	414,214	Nov. 5	57	12	49	749
Harshman, Jonathan S., Harshman, Ohio. Unloading attachment for cars	413,783	Oct. 29	2957	771	49	605
Harston, Charles G., Toronto, Ontario, Canada. Magazine-gun	415,039	Nov. 12	1305	340	49	1004
Hart, Albert J., Cromwell, Ind. Traction-engine	417,419	Dec. 17	1883	505	49	1737
Hart, Daniel R., New York, N. Y. Screw-driver	417,732	Dec. 24	2357	621	49	1856
Hart, Frank I., New York, N. Y. Ticket-case	415,457	Nov. 19	1969	511	49	1133
Hart, Frederick, Ponglakepsie, assignor to D. H. Burrell & Company, Little Falls, N. Y. Apparatus for delivering sheet paper	415,267	Nov. 19	1657	428	49	1073
Hart, Frederick, Ponglakepsie, assignor to D. H. Burrell & Company, Little Falls, N. Y. Counter-shaft	415,268	Nov. 19	1659	429	49	1073
Hart, George E., assignor to Waterbury Watch Company, Waterbury, Conn. Means for jeweling and end-shaking arbor-pivots	418,127	Dec. 24	2982	781	49	1974
Hart, George E., assignor to Waterbury Watch Company, Waterbury, Conn. Watch	418,128	Dec. 24	2984	782	49	1975
Hart, George E., assignor to Waterbury Watch Company, Waterbury, Conn. Watch-movement plate	418,129	Dec. 24	2986	783	49	1975
Hart, George E., assignor to Waterbury Watch Company, Waterbury, Conn. Stem-wind- ing watch	418,130	Dec. 24	2987	783	49	1975
Hart, George L. and H. C. Unionville, Conn. Manufacture of hollow-handled implements	414,215	Nov. 5	59	13	49	749
Hart, Hubert C. (See Hart, George L. and H. C.)						
Hart, Hubert C., Unionville, Conn. Manufacture of hollow-handled articles	417,244	Dec. 17	1618	439	49	1707
Hart, Joel T., assignor of one-half to J. D. Hart, Foster, Mo. Churn-dasher	414,332	Nov. 5	543	139	49	849
Hart, John D. (See Hart, Joel T.)						
Hart, John W., and H. Bartholomew, Joia, Kans. Washing-machine	415,247	Nov. 19	1659	421	49	1067
Hart, John W., and S. B. Wilkins, assignors to S. B. Wilkins Company, Rockford, Ill. Ma- chine for uniting knitted goods	415,779	Nov. 26	2477	647	49	1241
Hart, Russell A., Battle Creek, Mich. Waggon box	412,746	Oct. 15	1439	373	49	295
Hart, Stacy B., assignor to Hart Weigher Company, Peoria, Ill. Grain-meter	413,322	Oct. 22	2220	595	49	466
Hart Weigher Company. (See Hart, Stacy B., assignor.)						
Harter, Gustav A., assignor to Underwriters Hatch Door Company, Chicago, Ill. Electric lock	416,103	Nov. 26	2979	776	49	1344
Harter, Hiram B., Oneida, Kans. Veterinary surgical instrument	415,715	Nov. 26	2358	623	49	1224
Harter, John M. (See Harsh, Samuel E., assignor.)						
Harter, Vincent. (See Herrmann, Bruno S., assignor.)						
Hartig, Henry J., Brooklyn, N. Y. Gas-engine	415,197	Nov. 19	1563	402	49	1054
Hartley, Daniel, Olathe, Kans. Weather-strip	417,178	Dec. 10	1293	415	49	1679
Hartley, Daniel, Olathe, Kans. Window-screen	417,179	Dec. 10	1296	416	49	1680
Hartley, James D. and S. H., Chester, Ark. Buckle	414,407	Nov. 5	335	84	49	806
Hartley, Samuel H. (See Hartley, James D. and S. H.)						
Hartner, John. (See Mason and Hartner.)						
Hartness, James, Torrington, Conn., and E. F. Spaulding, Windsor, assignors to Jones & Lanson Machine Company, Springfield, Vt. Lathe-chuck	412,027	Oct. 1	362	90	49	73
Hartshorn, Stewart, Short Hills, N. J. Spring shade-roller	417,783	Dec. 24	2454	646	49	1875
Hartsing, Charles C., and E. Walsh, Jr., St. Louis, Mo. Gas and smoke consuming fur- nace	417,556	Dec. 17	2119	564	49	1801
Harvey, George, Forrestville, Cal. Draft-hook	417,180	Dec. 10	1292	416	49	1669
Harvey, George L., Chicago, Ill. Portable house	414,976	Nov. 12	1216	316	49	986
Harvey, John L., Philadelphia, Pa. Automatic safety-switch for railways	413,386	Oct. 22	2409	622	49	486
Harvey, Sampson D., Tipton, Ind. Vignetting attachment for printing-frames	414,811	Nov. 12	959	249	49	937
Harwick, Casper, Canal Fulton, Ohio. Double-acting pump	411,810	Oct. 1	48	14	49	13
Harwood, Beverly F. (See Dykes, James L., assignor.)						
Haskins, Charles D., Brooklyn, N. Y., and C. E. Scribner, assignors to Western Electric Company, Chicago, Ill. Electric-resistance-indicating device	414,310	Nov. 5	197	49	49	777
Haskins, Thomas. (See Little, Richard, Haslam, and Moorcroft.)						
Haslam, Thomas J., Jr., Dublin, Ireland. Secondary battery	416,695	Dec. 3	669	181	49	1504
Hastings, Charles S., New Haven, Conn. Telescope-objective	415,040	Nov. 12	1308	341	49	1004
Hastings, Emory B., Georgetown, assignor of one-fourth to C. P. O'Reilly and W. K. Ure, Denver, Colo. Ore-concentrator	412,180	Oct. 1	379	151	49	116
Hastings, Matthew E., assignor of one-half to W. S. Walcott, New York Mills, N. Y. Sheet-metal folder	412,254	Oct. 8	690	182	49	143
Hasty, Alonzo. (See Patrick and Hasty.)						
Hatch, Axel F. (See Kneeman, William A., assignor.)						
Hatch, George. (See Hatch, Jonathan and J.)						
Hatch, John, San Francisco, Cal. Safety device for elevators	416,000	Nov. 26	2907	736	49	1311
Hatch, Jonathan and G., South Windham, Conn. Music-stand	418,368	Dec. 31	3533	875	49	2957
Hatch, La Fayette. (See Bonner, George C., assignor.)						
Hatcher, Judson N. (See Crockett and Hatcher.)						
Hatcher, Manning F., Brooklyn, N. Y. Marble-cutting machine	410,164	Dec. 3	24	8	49	1374
Hatfield, Deming N., et al. (See Nickels, John, assignor.)						
Hatt, Samuel, assignor to G. Sanderson, Montreal, Quebec, Canada. Brake-shoe	411,861	Oct. 1	128	33	49	27
Hattberg, Axel K., Marshfield, Wis. Sandpapering-machine	414,408	Nov. 5	336	85	49	806
Hattersley, Richard L., and J. Hill, Kedgeley, county of York, England. Mechanical arrangement	414,641	Nov. 5	709	183	49	860

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Hattery, Joseph S., Waterloo, Iowa. Coupling for gas or other pipes.....	412,255	Oct. 8	692	153	49	144
Haubtmann, Leon F., New Orleans, La. Steam-heating coil.....	412,668	Oct. 1	445	115	49	89
Hauff, I. (See Dieterle, Wilhelm, assignor.).....						
Hansen, Ernst, E. E. Roberge, Waukau, Wis. Mitering machine.....	413,637	Nov. 19	3968	591	49	1192
Haugk, Carl H., New York, N. Y. Machine for making long-filler bunches.....	414,816	Nov. 19	308	13	49	750
Haugk, Carl H., New York, N. Y. Cigar-bunching machine.....	416,911	Dec. 10	1129	309	49	1601
Haugk, Carl H., Guttenberg, N. J., and E. Wenigmann, New York, N. Y. Cigar-bunching machine.....	416,912	Dec. 10	1133	310	49	1601
Hause, Joseph, Maugansville, assignor of one-half to L. Bear, Hayett, Md. Washing-machine.....	413,508	Oct. 22	9559	603	49	518
Hausman, F. H. (See Thomas, Henry E., assignor.).....						
Hausmann, Louis, New Orleans, La. Crane.....	417,480	Dec. 17	1886	505	49	1758
Hausmann, Hermann, Chicago, Ill. Veterinary incisor-cutter.....	414,311	Nov. 5	198	40	49	777
Havemann, Gustave, New Bremen, Ohio. Combined curry-comb and brush.....	413,602	Oct. 29	371	722	49	572
Haven, Wilson D., Trenton, N. J. Steam-engine valve.....	413,385	Nov. 19	1847	441	49	1108
Havey, Cornelius M. (See Black, W. Havey.).....						
Haviland, Joseph H., assignor to Weedsport Skirt and Dress Company, Weedsport, N. Y. Corset.....	414,119	Oct. 29	3449	897	49	710
Haviland, Joseph H., and T. A. Mitchell, Weedsport, N. Y. Button-strip.....	413,509	Oct. 22	2561	663	49	518
Hawes, Alonso E., Philadelphia, Pa. Grate.....	413,302	Nov. 19	1819	473	49	1102
Hawes, Elisha, Sacramento City, Cal. Solder-molting furnace.....	413,958	Oct. 29	3112	853	49	856
Hawes, Robert, assignor of one-half to J. Miller, Chicago, Ill. Car-brake.....	412,747	Oct. 15	1431	373	49	925
Hawes, William L., Cincinnati, Ohio. Top-prop rest for vehicles.....	412,748	Oct. 15	1432	374	49	925
Hawkes, Fred, C., Springfield, Mass. Vaporizer.....	416,913	Dec. 10	1134	310	49	1601
Hawkes, Thomas, New York, N. Y. Siphon and reflector for incandescent lamps.....	412,089	Oct. 1	446	116	49	90
Hawkins, J. Wesley, Kent, Ohio. Lifting-jack.....	413,663	Oct. 29	3782	723	49	572
Hawkins, John T., Taunton, Mass. Pipe-wrench.....	413,940	Oct. 29	3194	834	49	656
Hawkins, John T., Taunton, Mass. Valve for pneumatic pipes or tubes.....	413,941	Oct. 29	3194	834	49	656
Hawkins, John W. (See Morrison, Lemuel H., assignor.).....						
Hawkins, William H., Schaghticoke, N. Y. Gutter section and fastener.....	416,914	Dec. 10	1135	310	49	1602
Hawks, James D., et al. (See Susenihl, Francis G., assignor.).....						
Hawks, William K., Hoosick, N. Y. Folding plant-protector.....	415,638	Nov. 19	2269	502	49	1192
Hawley, Lewis M., Schenectady, N. Y. Siphon and trap for flushing apparatus.....	413,911	Nov. 26	2606	609	49	1240
Hawley, Melville A., St. Louis, Mo. Copy-holder.....	412,022	Dec. 24	2311	742	49	1943
Hawley, Nellie S., Omaha, Neb. Hair-dressing.....	416,606	Dec. 3	682		49	1505
Hawhurst, George W., Paterson, N. J. Holdback for vehicles.....	414,533	Nov. 5	542	139	49	849
Haydel, Harry L. (See Jacoby, Cornelia M., assignor.).....						
Hayden, Albert, et al. (See Gardner, Addison E., assignor.).....						
Hayden, Henry W. (See Nutting, Luther M., assignor.).....						
Hayden, James H., Raton, N. Mex. Ter. Inkstand.....	415,293	Nov. 19	1712	444	49	1063
Hayden, Thomas T. (See Bene, Charles W., assignor.).....						
Hayes, Charles C., Penn Yan, N. Y. Spring-gear for vehicles.....	413,037	Oct. 15	1274	499	49	378
Hayes, Charles C., Penn Yan, N. Y. Running-gear for vehicles.....	414,334	Nov. 5	543	139	49	849
Hayes, George, New York, N. Y. Metallic lathing.....	416,105	Dec. 3	26	9	49	1374
Hayes, Henry T., Oakland, Cal. Fire-ladder.....	412,705	Oct. 8	1368	356	49	275
Hayes, Mary. (See Soper, Robert W., assignor.).....						
Hayes, Michael F., New York, N. Y. Clothes-line clamp.....	412,749	Oct. 15	1433	374	49	925
Hayes, Charles, assignor to Hays Manufacturing Company, Erie, Pa. Hydrant.....	416,104	Nov. 26	2990	776	49	1344
Hays Manufacturing Company. (See Hays, Charles, assignor.).....						
Hazard, Rowland R. (See Barnes, David, assignor.).....						
Hazard, Rowland R., New York, N. Y. Means of access to a number of surface, elevated, or underground railways.....	413,942	Oct. 29	3195	834	49	656
Hazeltine, Ezra T., Warren, Pa. Picture-frame.....	416,007	Dec. 3	682	184	49	1505
Hazeltine, Henry, Boston, Mass. Car-coupling.....	412,706	Oct. 8	1369	356	49	275
Hazeltine, Edward W., and T. W., and J. Wolstenholme, Oldham, county of Lancaster, England. Bottle-stopper.....	415,507	Nov. 19	2056	534	49	1150
Hazlehurst, Thomas W. (See Hazlehurst and Wolstenholme.).....						
Hazlehurst, William. (See Hazlehurst and Wolstenholme.).....						
Head, B. J. (See Gragg, Zachry T., assignor.).....						
Head, Charles B., Allegheny, Pa. Electric fire-signal.....	414,155	Oct. 29	3516	915	49	723
Head, Dallas F., assignor of one-half to N. W. Warren, Mount Lebanon, La. Step ladder attachment for wagon-seats.....	412,023	Dec. 24	2312	742	49	1944
Head, William F., assignor to himself, C. L. Kinney, and E. D. Barker, Cortland, N. Y. Rail for carriage-seats.....	412,460	Dec. 31	3491	913	49	2065
Headen, John S., and J. T. Boswell, Pleasant Hill, Mo. Washing-machine.....	418,409	Dec. 31	3412	892	49	2070
Healea, George G. (See Healea, John and G. G.).....						
Healea, John and G. G., assignors of one-half to M. Hammond, Le Roy, Ill. Corn-conveyer.....	412,847	Oct. 15	1525	408	49	319
Healy, Clarence L., Brooklyn, N. Y. Quadruplex telegraphy.....	412,924	Dec. 31	3216	841	49	2030
Healy, William F. (See Wheeler, Charles A., assignor.).....						
Heaphy, Daniel J., Grand Rapids, Mich. Molder's sprue.....	411,962	Oct. 1	268	69	49	54
Heard, John A., and G. S. Mitchell, New Albany, Miss. Table, desk, or store-counter seat.....	413,510	Oct. 22	2562	603	49	518
Heartley, George W. (See Warner, Daniel, assignor.).....						
Heath, Eugene A., and J. May, Nonpareil, Neb. Force-pump.....	414,044	Oct. 29	3349	873	49	688
Heath, Hubert S., Islington, county of Middlesex, England. Delivery-machine.....	415,341	Nov. 19	1787	464	49	1098
Heatley, John, assignor of one-half to T. R. Venners, Pittsburgh, Pa. Furnace-door.....	412,884	Oct. 15	1628	425	49	329
Heaton, A.ner B., and R. D. Criswell, Winterset, Iowa; said Criswell assignor to said Heaton. Fifth-wheel for vehicles.....	417,537	Dec. 17	2121	565	49	1801
Heaton, John. (See Leach, Heaton, and Bentley.).....						
Heavy, Benjamin, assignor of one-half to M. Scanlan, Chicago, Ill. Garbage-furnace.....	411,963	Oct. 1	269	69	49	54
Hebblewhite, Arthur E., Armada, Mich. Clothes-pounder.....	414,704	Nov. 12	810	211	49	908
Hebdon, William, Boston, Mass. Machine for measuring and examining cloth.....	415,508	Nov. 19	2057	534	49	1151
Heberlein, Georg. (See Halbebaum, Franz, assignor.).....						
Hichert, Joseph O., Grand Rapids, Wis. Scissors.....	411,892	Oct. 1	173	44	49	35
Hichert, Joseph O., Grand Rapids, Wis. Pencil-holder for slate-frames.....	416,728	Dec. 10	965	233	49	1348
Hecht, Frank A., et al. (See Yates, Robert, assignor.).....						
Heck, Loni F., assignor of one-half to D. G. and J. A. Foyes, T. T. Johnson, and L. K. Mandelbaum, Little Rock, Ark. Safety attachment for fare-boxes.....	416,915	Dec. 10	1136	311	49	1602
Heckle, Oscar S., Macon, Ga. Rotary fan.....	415,458	Nov. 19	1970	511	49	1133
Hedden, Charles E. (See Albee and Hedden.).....						
Hedges, D. T. (See Fowler, Herbert E., assignor.).....						
Hedlan, George D., Wilkes-Barré, Pa. Type-writing machine.....	412,024	Dec. 24	2313	743	49	1944
Heffernan, John T., Dankirk, N. Y. Spring-gear for locomotives.....	412,256	Oct. 8	693	153	49	144

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dis.	Vol.	Page.
Hegg, Thomas O., assignor of one-half to J. Hussey, Madison, Wis. Shutter for cameras.	418,318	Dec. 31	3275	855	49	2042
Heldel, Gustavos, assignor to National Self Heating Sad Iron Company, St. Louis, Mo. Self-generating burner for sad-irons.	413,603	Oct. 92	9098	701	49	545
Heldel, Gustavos, assignor to National Self Heating Sad Iron Company, St. Louis, Mo. Sad-iron.	414,836	Nov. 12	995	257	49	944
Heldel, Gustavos, assignor to National Self Heating Sad Iron Company, St. Louis, Mo. Burner for self-heating sad-irons.	415,716	Nov. 26	2389	623	49	1224
Hellig, Irwin W., Potstown, Pa., assignor of one-half to S. K. Snodgrass, Delaware, Ohio. Pulverizer and concentrator.	418,514	Dec. 31	3577	934	49	2105
Heinbaugh, Reuben, Sedan, Kans. Coffee or tea pot.	418,461	Dec. 31	3492	914	49	2066
Hein, William, assignor to Iron City Manufacturing Company, Pittsburg, Pa. Manufacture of nuts.	417,784	Dec. 24	2456	646	49	1875
Heinbach, George E., Lewistown, Pa. Ratchet-drill frame.	415,198	Nov. 19	1565	403	49	954
Heine, Alfred N. (See Morrow and Heine.)						
Heiney, Benjamin F., Huntington, Ind. Door-check.	418,462	Dec. 31	3493	914	49	2066
Heins, Charles F., Charleston, S. C. Barrel-cover.	414,409	Nov. 5	337	85	49	890
Heintz, Peter, Grand Island, Nebr. Combined hay rake and stacker.	413,854	Oct. 29	3055	796	49	624
Heintz, Georg, Klotzsche, near Dresden, Saxony, Germany. Water-velocipede.	413,719	Oct. 29	2967	748	49	588
Heisey, Augustus H., et al. (See Seiple, Harry, assignor.)						
Heiskell, Frank. (See Washington, Lafayette, assignor.)						
Heizer, John H., Washington, D. C. Car-starter.	414,312	Nov. 5	199	49, 50	49	778
Helbing, Henry T., Highland, N. Y. Trunk-binge.	414,905	Nov. 12	1109	286	49	965
Held, Heinrich, assignor to Loebhauser Sohlennagel-Fabrik Held and Braun, Loebhauser, Wittenberg, Germany. Stopping mechanism for engines.	414,837	Nov. 12	996	258	49	944
Helliwell, Thomas W., Brigbourne, county of York, England. Glazing-bar for skylights.	412,720	Oct. 15	1434	374	49	296
Helm, Nathan B., et al. (See Ferris, Henry L., assignor.)						
Helm, Julius, St. Louis, Mo. Stop-check.	417,785	Dec. 24	2458	647	49	1876
Hendershott, Albert F., Washington, D. C. Roll-paper holder and cutter.	415,199	Nov. 19	1567	403	49	1054
Henderson, George, Liverpool, county of Lancaster, England. Apparatus for drawing off grain from silos.	413,720	Oct. 29	2868	748	49	588
Henderson, Isaac W., assignor to Western Publishing House, Chicago, Ill. Map case and holder.	414,945	Nov. 12	1167	304	49	977
Henderson, John, Jr., Waterbury, Conn. Friction-gearing.	412,382	Oct. 8	896	231	49	189
Henderson, William, Chicago, Ill. Manufacturing metallic cross-bars and rails for window-sashes.	412,751	Oct. 15	1435	374 } 375 }	49	296
Hendey, Arthur, Denver, Colo. Machine for cutting tenons.	416,608	Dec. 3	663	184 } 185 }	49	1505
Hendricks, James B. (See Smith, George W., assignor.)						
Henkels, Daniel H., Philadelphia, Pa. Coal-chute.	415,970	Nov. 26	2768	784	49	1302
Henry, Leonard, Rochester, assignor to C. S. Upton, New York, N. Y. Lamp.	412,181	Oct. 1	582	152	49	117
Henkle, Leonard, Rochester, assignor to C. S. Upton, New York, N. Y. Lamp.	415,108	Nov. 12	1396	364	49	1023
Henley, Albert, Lawrence, Kans. Bale-tie machine.	414,410	Nov. 5	338	85, 86	49	807
Henning, Abel, Oakland, assignor of one-half to A. M. Belt, Alameda, and T. Flint, San Juan, Cal. Oil-gas apparatus.	416,609	Dec. 3	665	185	49	1506
Henry, Henry M., St. Louis, Mo. Spring bed-bottom.	412,612	Oct. 8	1229	322	49	244
Heary, Robert T., assignor of one-half to H. A. Sims, Roanoke, Va. Car-coupling.	418,564	Dec. 31	3656	936	49	2120
Heut, Reuben W., San Francisco, Cal. Roller-bearing.	413,446	Oct. 22	2465	640	49	919
Hennborn, Elton R., Buckner, Mo. Stamp-register.	413,455	Oct. 29	3057	796	49	625
Hephurn, James R. (See Simmons and Hephurn.)						
Herberg, Toller, Hendrum, Minn. Expanding drill-blade.	414,411	Nov. 5	342	86	49	807
Herberger, Tony, and R. Singer, Dayton, Ohio. Miter.	413,323	Oct. 22	2292	596	49	667
Herman, Jacob L., Redfield, Dak. Ter. Straw-burning attachment for stoves.	413,664	Oct. 29	2784	723	49	572
Herman, John A., et al. (See Drawbaugh, Daniel, assignor.)						
Herrick, George M., Greenwood, Me. Self-adjusting counter-balance.	414,642	Nov. 5	710	184	49	881
Herrington, William S., San Francisco, Cal. Miter-box.	414,412	Nov. 5	343	86	49	808
Herrinton, Edward E. (See Russell and Herrinton.)						
Herritt, John W., Hubbell, Nebr. Churn.	416,610	Dec. 3	667	186	49	1506
Herrmann, Albert, assignor to Farberwerke, vormals Meister, Lucius & Brüning, Höchst-on-the-Main, Germany. Coloring matter.	412,613	Oct. 8	1230	322	49	245
Herrmann, Albert, assignor to Farberwerke, vormals Meister, Lucius & Brüning, Höchst-on-the-Main, Germany. Preparing coloring-matter.	412,614	Oct. 8	1232	322	49	248
Herrmann, Albert, assignor to Farberwerke, vormals Meister, Lucius & Brüning, Höchst-on-the-Main, Germany. Coloring-matter.	412,615	Oct. 8	1234	322	49	248
Herrmann, Bruno S., assignor of one-half to Y. C. Ching, Chicago, Ill. Breech-loading fire-arm.	415,509	Nov. 19	2029	534	49	1153
Herschel, Clemens, Holyoke, Mass. Instrument for recording differences of pressure.	417,245	Dec. 17	1618	439	49	1707
Hershel, Eugene M. (See Curtis, Charles B., assignor.)						
Hershey, Milton. (See Landis, Ezra P., assignor.)						
Hershey, Milton S., Lancaster, Pa. Candy-holder.	412,000	Oct. 1	447	116	49	90
Hertz, Frank. (See Bookser, Rudolph C., assignor.)						
Hess, Albert T., Des Moines, Iowa. Annunciator.	415,192	Nov. 12	1542	397	49	1042
Hess, James O., Suley, Ohio. Miter.	416,729	Dec. 10	866	233	49	1548
Hess, John A., Philadelphia, Pa. Apparatus for grinding and polishing metals, &c.	412,616	Oct. 8	1237	322	49	248
Hess, Oliver I., Scottsdale, Pa. Oil-can.	417,639	Dec. 17	2223	223	49	1822
Hess, Rolla W., New York, N. Y. Mustache-holder.	414,335	Nov. 5	543	139	49	849
Hess, Charles, Danville, Ill. Combined cultivator and harrow.	417,421	Dec. 17	1866	505	49	1758
Hetherington, John M., Manchester, county of Lancaster, England. Brake for spinning-spindles.	414,536	Nov. 5	544	140	49	849
Hewitt, Jackson W., Jackson, Mich. Vehicle-shafts.	413,229	Oct. 22	2140	538	49	437
Hewitt, James. (See Wilson, Charles, assignor.)						
Hewitt, William, London, Ontario, Canada. Fire-escape ladder.	412,752	Oct. 15	1438	375	49	296
Heyberger, Frank, Camden, N. J., assignor of one-half to S. A. Heyberger, Reading, Pa. Singletree.	415,248	Nov. 19	1632	421	49	1068
Heyberger, Sarah A. (See Heyberger, Frank, assignor.)						
Heydler, Edward F., Dresden, Germany. Microphone.	412,885	Oct. 15	1627	425	49	330
Heylman, Edward M., assignor of one-half to J. Spink, Havana, Ill. Seed-planter.	412,182	Oct. 1	584	153 }	49	117
Heyne, Georg, Offenbach-on-the-Main, Germany. Screw-machine.	414,906	Nov. 12	1110	286 }	49	965
Heynemann, Lionel. (See Watriss and Heynemann.)						
Heyniger, Isaac W., Philadelphia, Pa. Copying-press.	411,811	Oct. 1	49	14, 15	49	13
Heyniger, Isaac W., Philadelphia, Pa. Hair-crimper.	418,515	Dec. 31	3579	935	49	2105

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.		
			Spec.	Drig.	Vol.	Page.	
Heywood, Charles H., assignor to P. P. Kellogg & Co., Springfield, Mass. Envelope-machine.	416,105	Nov. 26	2981	777	49	1345	
Hibbard, Frank B., Irvington, Nehr. Horse-collar.	414,313	Nov. 5	901	50	49	778	
Hibben, Henry F., et al. (See Grafton, William C., assignor.)							
Hibbert, Charles S. (See Boynton, Hibbert, and Stearns.)							
Hibdon, John B., et al. (See Grafton, William C., assignor.)							
Hickey, Edward J. (See Jobstown, William, assignor.)							
Hickey, John P., Washington, D. C. Button-fastener.	415,439	Nov. 19	1971	512	49	1133	
Hickman, Edgar M., assignor to Gale Manufacturing Company, Albion, Mich. Jointer-arm for plows.	415,866	Nov. 26	2599	679	49	1365	
Hickman, Edgar M., assignor to Gale Manufacturing Company, Albion, Mich. Buffer-wheel.	417,793	Dec. 24	3357	621	49	1857	
Hickman, Thomas P., Savoy, Tex. Wire-stretcher.	413,397	Oct. 22	2403	623	49	440	
Hicks, James K., assignor of one-half to F. D. Walpole, McKenzie, Tenn. Car-brake.	414,537	Nov. 5	546	140	49	550	
Hicks, Oliver H., Chicago, Ill. Paper receptacle.	418,179	Dec. 31	3068	804	49	2000	
Hicks, Oliver H., Chicago, Ill. Paper receptacle.	418,180	Dec. 31	3069	805	49	2000	
Hieatman, Arthur H., assignor of one-half to J. M. Deems, Baltimore, Md. Portable fan for beds.	418,463	Dec. 31	3494	914	49	2096	
Higby, Edward H. (See Morsman and Higby.)							
Higby, Edward H., Mapleton, Kans. Wagon-brake.	415,510	Nov. 19	3061	535	49	1131	
Higgins, Charles J., Hallowell, Me. Lantern.	417,026	Nov. 10	1296	354	49	1634	
Higgins, John J., New York, N. Y. Magnesium flash-light apparatus.	417,422	Dec. 17	1888	506	49	1758	
Higgins, Riverious T. (See Flowers, Philip, assignor.)							
Higham, Charles C., St. Louis, Mo., assignor to Westinghouse Air Brake Company, Pittsburgh, Pa. Balance-spring for brake-heads.	417,181	Dec. 10	1528	416	49	1660	
Higley, Eben N., Somersworth, N. H. Machine for drilling railway-rails, &c.	415,780	Nov. 26	2478	648	49	1341	
Hilbert, Frank J. (See Carter, John T., assignor.)							
Hilly, Frederick J., assignor of one-half to H. W. Treat, Chicago, Ill. Air-warming attachment for stoves.	413,367	Oct. 22	2395	612	49	478	
Hilcher, Edward P., Chicago, Ill. Bake-oven door.	418,285	Dec. 31	3220	942	49	2031	
Hildreth, Fred. (See Burnham, Arthur M., assignor.)							
Hile, George W., et al. (See Jones, Jefferson P., assignor.)							
Hilke, Louis, Bellevue, Pa. Liniment.	416,730	Dec. 10	897	640	49	1548	
Hill, Charles, Newark, N. J. Machine for winding thread on spools.	413,447	Oct. 22	2468	641	49	499	
Hill, Charles S., et al. (See Leighton, Carleton F., assignor.)							
Hill, Christian C., assignor to C. L. Ames and A. H. Frost, Chicago, Ill. Machine for fastening the ends of coiled-wire springs.	413,666	Oct. 29	2787	734	49	373	
Hill, Clement V., Trenton, N. J. Refrigerator.	414,907	Nov. 13	1113	387	49	965	
Hill, Eugene H. (See Osburn, Harry G., assignor.)							
Hill, James. (See Hattersley and Hill.)							
Hill, Justin H., Chicago, Ill. Extractor for tube-wells.	412,707	Oct. 8	1366	357	49	275	
Hill, Levi, Muncy, Pa. Fire-escape.	415,867	Nov. 26	2599	679	49	1305	
Hill, Martin V. B., New Haven, Conn. Machine for punching strips for spring-beds.	414,314	Nov. 5	902	50	49	778	
Hill, Warren, Minneapolis, Minn. Removable head-rest for car-seats.	415,336	Nov. 19	1764	438	49	1094	
Hill, Warren E., Brooklyn, assignor to T. F. Rowland, New York, N. Y. Tube and making the same.	414,643	Nov. 5	711	184	49	881	
Hill, William E., Kalamazoo, Mich. Log-holder.	413,721	Oct. 29	2809	748	49	368	
Hilton, Charles W., assignor of one-third to J. E. Greer, Manchester, N. H. Auxiliary gripper.	415,639	Nov. 19	2270	392	49	1133	
Hilton, James, Newark, N. J. Saw-cut.	411,893	Oct. 1	173	44	49	35	
Hinchman, Cary S. (See Cook and Hinchman.)							
Hinckley, Howard, Trenton, N. J. Indicator for doors.	417,734	Dec. 24	3358	621	49	1857	
Hindemeyer, Anthony J., Philadelphia, Pa. Composition for welding steel.	417,485	Dec. 17	1991	49		1778	
Hinds, John M., Palmyra, Ind. Napkin-holder table attachment.	418,025	Dec. 24	3214	743	49	1944	
Hinsdill, Henry M., assignor to W. R. Willard, Grand Rapids, Mich. Spring-catch.	414,217	Nov. 5	61	13	49	750	
Hippard, Emanuel, Youngstown, Ohio. Transom-lifter.	417,182	Dec. 10	1529	416	49	1660	
Hipperling, William, New York, N. Y., assignor to S. A. Ginna, Plainfield, N. J., and R. A. Donaldson, Brooklyn, N. Y. Machine for testing cans.	415,900	Nov. 19	1568	403	49	1053	
Hipperling, William, New York, N. Y., assignor to S. A. Ginna, Plainfield, N. J., and R. A. Donaldson, Brooklyn, N. Y. Machine for testing tin cans.	415,901	Nov. 19	1570	405	49	1053	
Hipperling, William, New York, N. Y., assignor to S. A. Ginna, Plainfield, N. J., and R. A. Donaldson, Brooklyn, N. Y. Apparatus for drying tin cans.	415,386	Nov. 19	1848	481	49	1108	
Hirsch, Ludwig, New York, N. Y. Electrical toy.	413,058	Oct. 15	1874	483	49	379	
Hirsch, Ludwig, New York, N. Y. Jeweler's tray.	417,640	Dec. 17	3234	393	49	1284	
Hirschel, August, Hackensack, N. J. Tool for peeling or scraping vegetables.	414,908	Nov. 12	1114	287	49	966	
Hirschler, Siegfried, Worms, Germany. Grain-turret.	415,469	Nov. 19	1972	512	49	1133	
Hirschler, Siegfried, Worms, Germany. Transporting apparatus.	417,835	Dec. 24	3217	602	49	1887	
Hirschbeller, Albert, La Crosse, Wis. Harrow.	413,230	Oct. 22	2147	558	49	438	
Hirst, Charles S., Philadelphia, Pa. Device for pressing and stretching trousers.	414,315	Nov. 5	904	51	49	777	
Hitchcock Manufacturing Company. (See Lines, A. Alonzo, assignor.)							
Hitchings, Charles E., New York, N. Y. Rooking grate.	416,332	Dec. 3	965	69	70	49	1422
Hite, Bert H., Morgantown, W. Va. Cornet.	412,753	Oct. 15	1438	375	49	296	
Hix Automatic Car Coupling Company. (See Hix, Oliver P., assignor.)							
Hix, Oliver P., assignor to Hix Automatic Car Coupling Company, Rockland, Me. Car-coupling.	418,565	Dec. 31	3657	937	49	2120	
Hoadley, William H., Chenango Forks, N. Y. Device for ventilating mines, cellars, &c.	413,369	Nov. 19	1660	429	49	1073	
Hobler, Peter, Chicago, Ill. Portable grinding-mill.	417,423	Dec. 17	1891	506	49	1759	
Hobson, Charles H., Mount Carmel, Pa. Lamp-carrier for miners' hats.	416,362	Dec. 3	164	44	49	1400	
Hobson, John, Jackson, Kans. Obstetrical forceps.	416,459	Dec. 3	456	134	49	1461	
Hochhausen, William, Brooklyn, N. Y. Electric regulator.	413,379	Oct. 22	2218	577	49	452	
Hochhausen, William, Brooklyn, N. Y. Switch for dynamo-electric machines.	413,380	Oct. 22	2222	578	49	452	
Hochhausen, William, assignor to Excelsior Electric Company, New York, N. Y. System of arc and incandescent electric lighting.	416,611	Dec. 3	688	186	49	1507	
Hochhausen, William, assignor to Excelsior Electric Company, New York, N. Y. System of arc and incandescent electric lighting.	416,612	Dec. 3	690	187	49	1507	
Hochspeier, Louis P. (See Hochspeier, William F. and L. P.)							
Hochspeier, William F. and L. P., Union Hill, N. J. Swift for silk-winding.	417,424	Dec. 17	1892	506	49	1759	
Hockett, Pleasant, Colorado Springs, Colo. Gearing for high-speed motors.	412,754	Oct. 15	1440	376	49	297	

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Hodge, Jesse P. (See Channell, Emmet W., assignor.)						
Hodge, Walter M. (See Kerr and Hodge.)						
Hodges, Addison S., Chelsea, Mass. Steam-engine	413,231	Oct. 22	2149	558	49	438
Hodges, Addison S., Chelsea, Mass. Flisk for making seamless sash-weights	414,938	Nov. 12	997	358	49	944
Hodges, Charles C., et al. (See McCoy and Hodges, assignors.)						
Hodges, Clarence B. (See McCoy and Hodges.)						
Hodges, Clarence B., Detroit, Mich. Lubricator	418,131	Dec. 24	2990	784	49	1976
Hodges, Clement C., Gonzales, Tex. Car-coupling	413,182	Oct. 22	2073	540	49	424
Hodges, Henry C., et al. (See McCoy and Hodges, assignors.)						
Hodges, Horace F., Boston, Mass. Motor or pump	417,387	Dec. 17	1845	485	49	1749
Hodgson, John G., assignor to E. Norton, Maywood, and O. W. Norton, Chicago, Ill. Dou-						
ble-acting gang-die press	413,607	Oct. 29	2790	724 725 726	49	573
Hodgson, John G., assignor to E. Norton, Maywood, and O. W. Norton, Chicago, Ill. Gang-						
die press	413,608	Oct. 29	2793	727 728	49	574
Hoeder, Carl, Hamburg, Germany. Funnel for preparing coffee	411,920	Oct. 1	208	54	49	43
Hoefler, Christian L., Kearney, Neb. Watch-case pendant	413,398	Oct. 22	2405	623	49	487
Hoefler, Frederick W., Freeport, Ill. Spring-hinge	416,400	Dec. 3	457	124	49	1461
Hoeftle, Fred. (See Jeffrey, Harry, assignor.)						
Hoeftle, Francis L. (See Irwin, Hoeftle, and Simmons.)						
Hoen, Ernest A., Richmond, Va. Cigarette-box	414,338	Nov. 5	548	141	49	850
Hofer, William L., Manhattan, Kans. Game apparatus	413,418	Oct. 22	2470	611	49	500
Hoffland, Alexander, assignor of one-half to J. S. Carman, Alliance, Neb. Flow-shaping						
ing device	416,166	Dec. 3	28	9	49	1375
Hoffman, Jacob R., Charleston, W. Va. Band-saw pulley	417,425	Dec. 17	1893	507	49	1759
Hoffmann, Carl. (See Von Hoffmann and Hoffmann.)						
Hoffmann, Carl, assignor to Grusonwerk, Magdeburg, Prussia, Germany. Canal	416,613	Dec. 3	603	187	49	1508
Hoffmann, Ernst G., New Southgate, county of Middlesex, England. Coin-controlled						
ticket-printing weighing-machine	415,294	Nov. 19	1713	444 445 446	49	1063
Hogan Engineering Company. (See Hogan, John J., assignor.)						
Hogan, John, St. Louis, Mo. Attachment for chairs	412,617	Oct. 8	1238	323	49	949
Hogan, John J., New York, N. Y. Pattern for casting ribbed articles	414,705	Nov. 12	811	212	49	908
Hogan, John J., assignor to Hogan Engineering Company, New York, N. Y. Cone and						
screw pipe coupling	415,387	Nov. 19	1851	482 483	49	1109
Hogan, John J., assignor to Hogan Engineering Company, New York, N. Y. Ribbed-cyl-						
inder pattern	416,333	Dec. 3	266	70	49	1422
Hogan, John J., assignor to Hogan Engineering Company, New York, N. Y. Heating ap-						
paratus	416,614	Dec. 3	696	188	49	1508
Hogarth, William H. J., Columbia, Tex. Device for distributing insect-powder	418,036	Dec. 24	2815	743	49	1944
Hoggson & Pettin Manufacturing Company. (See Sweetland, William L., assignor.)						
Hollanbach, August, Clay City, Ill. Plow	414,539	Nov. 5	549	141	49	850
Holbrook, Albert, Jr., assignor to J. B. Walsh, Providence, R. I. Machine-belt-						
ing	417,558	Dec. 17	2121	565	49	1801
Holcomb, Mary H., Fargo, Dak. Ter. Baking-dish	414,413	Nov. 5	344	87	49	808
Holden, Warren, assignor to Fowler Brothers, Providence, R. I. Jewelry-setting	416,677	Dec. 3	790	216	49	1527
Holder, William H., Secyville, Pa. Assignor of one-half to E. H. Carwell, Jersey City,						
N. J. Ropo or line holder	415,169	Nov. 12	1529	394	49	1039
Holdsworth, Samuel, Durham, England. Jacquard apparatus	412,755	Oct. 15	144	377	49	297
Holdsworth, Samuel, Brooklyn, N. Y. Combination screen	417,027	Dec. 10	1928	354	49	1635
Hollhaugh, Hyran A., Marlborough, Ohio. Fence	412,387	Oct. 8	888	271	49	140
Holland, Charles A., Maxton, N. C. Lift-pump	412,501	Oct. 8	1059	276	49	214
Holland, Dwight. (See Barrett, Sidney H., assignor.)						
Holland, Henry F., San Francisco, Cal. Ore-concentrator	416,704	Dec. 3	825	224	49	1533
Holland, James T. (See Robertson and Holland.)						
Holland, John, Cincinnati, Ohio. Fountain-pen	415,838	Nov. 26	2562	668	49	1258
Holland, Wallace S., Pasadena, Cal. Holder for sashes or blinds	413,511	Oct. 22	2262	664	49	518
Holland, William J., Era, Tex. Wheel	412,848	Oct. 15	1508	409	49	319
Holler, John. (See Eckersley, John, assignor.)						
Hollingsworth, William, assignor to W. J. Hooper, Baltimore, Md. Capstan-head feed-						
motion for rope or twine machines	412,708	Oct. 8	1370	357	49	275
Holmeshead, C. S., et al. (See Miles, Jackson B., assignor.)						
Hollister, Herschel H., and T. H. Hall, Scranton, Pa. Harrow	417,183	Dec. 10	1530	417	49	1681
Holloway, Elmer E., Indianapolis, Ind. Piano tuning-pin	416,334	Dec. 3	298	70	49	1422
Holloway, James C., and J. Frey, San Francisco, Cal. Scouring, grinding, polishing, and						
smutting composition	417,866	Dec. 24	2573	678	49	1807
Holm, Olof, Minneapolis, Minn. Traveling derrick	414,218	Nov. 5	62	14	49	750
Holman, George F. W., U. S. Navy. Pencil-sharpening gage and point-protector	414,414	Nov. 5	345	87	49	808
Holmes, Britain. (See Holmes, Edward and B.)						
Holmes, E. & B. (See Deinger, Edwin F., assignor.)						
Holmes, Edward and B., Buffalo, N. Y. Stave-jointing machine	415,461	Nov. 19	1974	512 513	49	1134
Holmes, Edward and B., Buffalo, N. Y. Coffin	417,725	Dec. 24	2359	622	49	1837
Holmes, George P. C., Llangollen, county of Denbigh, England. Racket holder and press	415,342	Nov. 19	1728	465	49	1068
Holms, Herbert E., West Springfield, Mass. Lath-dog	418,404	Dec. 31	3495	914	49	2028
Holmes, Horace, Detroit, Mich. Carving-machine	413,722	Oct. 29	2970	749	49	529
Holmes, John, Boston, Mass. Knitted supporter	416,615	Dec. 3	697	188	49	1509
Holmes, John, Boston, Mass. Knitted shirt	416,616	Dec. 3	698	188	49	1509
Holmes, John, Boston, Mass. Knitted pantaloons	416,617	Dec. 3	699	189	49	1509
Holmes, John A., Salt Lake City, Utah Ter. Lubricator	415,410	Dec. 31	3413	892	49	3070
Holmes, Louis B., Cohoes, assignor of one-half to W. T. Lintner, Troy, N. Y. Speed-indi-						
cator	418,411	Dec. 31	3416	893	49	3071
Holmes, Philip H., Gaidiner, Me. Lubricant-bearing	412,849	Oct. 15	1509	409	49	320
Holmes, Watson M., Hoosick Falls, N. Y. Grain-hinder	414,830	Nov. 12	999	259	49	945
Holsey, Julius H., Corsicana, Tex. Blasting-pig	414,540	Nov. 5	550	141	49	850
Holsinger, Samuel L. (See Bacon and Holsinger.)						
Holton, Albert B., Chicago, Ill. Horseshoe	412,709	Oct. 8	1371	357	49	276
Holton, Albert B., assignor to Holson Horse Shoe Company, Chicago, Ill. Horseshoe	412,337	Oct. 8	812	212	49	106
Holton Horse Shoe Company. (See Holson, Albert B., assignor.)						
Roit, Benjamin, Stockton, Cal. Feeding mechanism for combined harvester and thrasher	416,618	Dec. 3	699	189	49	1509

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.
			Spec.	Dr'g	
Holt, Benjamin, Stockton, Cal. Grain-cleaner	416,916	Dec. 10	1140	311	49 1603
Holt, Frank P. (See Sleeper and Miller, assignors.)					
Holt, Frank S., Montgomery, Ala. Fire-tightener	417,332	Dec. 17	1738	468	49 1730
Holt, N. D. (See Chase, Oscar, assignor.)					
Holt, Noah W., Manchester, Mich. Separating-machine	417,676	Dec. 17	2282	604 605	49 1833
Holt, Oliver G., Louisville, Ky., assignor to M. Riehnack, trustee. Printing, lithographing, &c.	412,183	Oct. 1	588		49 118
Holt, Oliver G., Louisville, Ky., assignor to M. Riehnack, trustee. Ink	412,184	Oct. 1	587		49 118
Holtzman, Otto J., Boonsborough, and T. Forsyth; said Forsyth assignor to A. Forsyth, Howardville, Md. Thill-coupling	414,946	Nov. 12	1169	305	49 977
Holz, Frederick, Cincinnati, Ohio. Process of and apparatus for punching and feeding blanks	412,612	Oct. 8	1339	323	49 949
Homas, William C., assignor to E. Miller & Company, Meriden, Conn. Hanging lamp	412,562	Oct. 8	1960	376	49 214
Hood, John, and S. H. Reynolds, Boston, Mass. Dental engine	412,930	Oct. 15	1679	438	49 339
Hooper, William, Ticonderoga, N. Y. Ore-separator	414,706	Nov. 12	814	212	49 908
Hooper, William J. (See Hollidayworth, William, assignor.)					
Hooper, William J. (See Iceman, Robert E. L., assignor.)					
Hopces, Jacob, and E. Marvin, Sterling, Kans. Hedge-trimmer	416,933	Dec. 3	165	44, 45	49 1400
Hopces, William H., Brooklyn, N. Y. Leather-stripping machine	412,503	Oct. 8	1062	277	49 214
Hoveen, James, Norristown, Pa. Machine for scarfing and heading tube-akelps	416,731	Dec. 10	867	234 235	49 1549
Hoover, Augustus M., Bellefonte, Pa. Collar or flange for steam or hot-air pipes	416,294	Dec. 3	214	56	49 1410
Hoover, Charles M., Croton, Ohio. Thill-coupling	416,619	Dec. 3	700	189	49 1509
Hoover, Harriet E., Lincoln, Neb. Liniment	416,409	Dec. 3	363		49 1446
Hoover, Isaac W., Avery, Ohio. Potato-digging and gathering machine	415,202	Nov. 19	1574	405	49 1256
Hopedale Machine Screw Company. (See Roper, Charles F., assignor.)					
Hopkins, Cabel B., Louisville, Ky. Key-arrester for cash-indicators	415,781	Nov. 26	2420	648	49 1242
Hopkins, Frank B. (See Cook, William T., assignor.)					
Hopkinson, Edward. (See Hopkinson, John and E.)					
Hopkinson, John, Westminster, county of Middlesex, and E. Hopkinson, Manchester, county of Lancaster, England. Synchronizing alternate-current generators	412,186	Oct. 1	589	153	49 118
Hopkinson, John, Westminster, county of Middlesex, England, assignor to Westinghouse Electric Company, Pittsburgh, Pa. System of electrical distribution by alternating currents	404,541	Nov. 5	552	141 142	49 851
Hopkinson, John, Westminster, county of Middlesex, and E. Hopkinson, Manchester, county of Lancaster, England, assignors to G. Westinghouse, Jr., Pittsburgh, Pa. Coupling alternate-current generators	412,185	Oct. 1	588	153	49 118
Hopper, Henry S., Detroit, Mich. Car-brake	417,346	Dec. 17	1621	440	49 1708
Hoppes, John J., assignor to Hoppes Manufacturing Company, Springfield, Ohio. Feed-water heater and purifier	412,886	Oct. 15	1029	425	49 330
Hoppes Manufacturing Company. (See Hoppes, John J., assignor.)					
Horn, Heinrich, assignor of one-half to C. Gerhardt, New York, N. Y. Combined rule and protractor	415,944	Nov. 26	2731	714	49 1295
Horn, John, Canal Dover, Ohio. Hay-fork	416,917	Dec. 10	1141	311	49 1603
Horn, Schooler C., Bladensburg, Ohio. Combined storm-coat and vehicle-apron	417,028	Dec. 10	1298	354	49 1635
Horn, Thomas P., Lyvermore Falls, assignor to Otis Falls Pulp Company, Portland, Me. Machine for removing bark from tree-sections	416,784	Dec. 10	944	255	49 1563
Horne, Horace W., and H. Lako, Haverhill, Mass. Heel-burnishing machine	414,919	Nov. 5	64	15	49 751
Horne, John W., Boston, Mass. Making account-books	417,247	Dec. 17	1022	440	49 1708
Horne, Herbert, Port Perry, Ontario, Canada. Potato digger and picker	412,619	Oct. 8	1240	323 324	49 949
Horne, Richard C. (See Hyde and Horner.)					
Horr, William W., Lansing, Mich. Attachment for pumps	413,669	Oct. 29	2795	727	49 575
Horrall, William A., assignor of one-half to J. C. Billheimer, Washington, Ind. Mail-pouch fastener	417,641	Dec. 17	1923	504	49 1389
Horsley, Edward H., Chicago, Ill. Embalming apparatus	416,223	Dec. 3	103	30	49 1284
Horton, Charles H., Wellington, Ohio. Combined grain-thresher and clover-seed huller	412,237	Oct. 8	694	183	49 144
Horton, Charles H., Wellington, Ohio. Brick-machine	415,270	Nov. 19	1661	429 430	49 1074
Horton, Everett, Bristol, Conn. Sash-fastener	417,029	Dec. 10	1300	355	49 1635
Horton, James A., Reading, Mass. Sole laying and pressing machine	416,620	Dec. 3	701	190 191	49 1510
Horton, Peter D., Nevada City, Cal., assignor to Williams & Rogers, Rochester, N. Y. Penmanship-guide	417,329	Dec. 17	2129	565	49 1291
Rosea, James W., Hutchinson, Kans. Sash-fastener	417,338	Dec. 17	1817	495	49 1749
Hostler, John T., Kalamazoo, Mich. Windmill	414,113	Oct. 29	3450	897	49 710
Hosler, John T., Kalamazoo, Mich. Windmill	414,114	Oct. 29	3451	897	49 710
Hotchkins, Charles R. (See Smith, William G., assignor.)					
Hotchkins, Frederick G., Brooklyn, N. Y. Paper box	413,784	Oct. 29	2958	771	49 605
Hothsall, James, Brooklyn, N. Y. Carpet-cleaning machine	418,286	Dec. 31	3222	842	49 2031
Houch, Thomas W., and C. B. Eiker, New York, N. Y. Combined gas-lighting torch, taper-case, and match-box	417,030	Dec. 10	1301	355	49 1635
Houch, Samuel M., Springfield, Ohio. Wick-trimmer	417,031	Dec. 10	1301	355	49 1636
Hough, David L., Camden, N. J., and H. Knight, New York, N. Y. Coin-operated mechanism	417,726	Dec. 24	2960	692	49 1857
Hough, George W., Evanson, and W. Scherzer, Chicago, Ill. Astronomical dome	416,304	Dec. 3	317	83	49 1431
House, Charles E., Canton, Ohio. Fire-tongs	413,163	Oct. 22	2974	549	49 424
House, Henry A., assignor to Compressed Paper Box Company, Bridgeport, Conn. Paper-box machine	414,840	Nov. 12	1001	259 260	49 945
House, Mark. (See Parker and House.)					
House, Warren D., Kansas City, Mo. Volumetric fluid-pressure regulator	415,203	Nov. 19	1575	406	49 1056
House, Warren D., Kansas City, Mo. Volumetric fluid-pressure regulator	415,204	Nov. 19	1577	406	49 1056
Housel, Martin J., assignor to Akron Stoneware Company, Akron, Ohio. Crook-press	412,504	Oct. 8	1033	277	49 215
Houseman, Thomas, and C. B. Stevens, Philadelphia, Pa., assignors to United States Food Fertilizer and Manufacturing Company, of Pennsylvania. Desiccation	413,332	Oct. 22	2150	558 559	49 438
Honston, George A., Beloit, Wis. Heating railway-cars or other structures	415,272	Nov. 19	1668	432 433	49 1075
Houston, George A., Beloit, Wis. Pipe-connection for railway-cars	415,273	Nov. 19	1673	433	49 1075
Honston, George A., Beloit, Wis., and H. Hackney, Topeka, Kans. Heating railway-cars or other structures by the agency of live or exhaust steam	415,271	Nov. 19	1663	431 432	49 1074
Hout, Edward, Blount, assignor of two-thirds to J. C. Stebbins and J. A. Johnson, Pierre, Dak. Ter. Road-scraper	412,620	Oct. 8	1343	334	49 850

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.
			Spec.	Dr. g.	
Houtz, Edward, assignor of one-half to J. F. Williams, Blunt, Dak. Ter. Corn-harvester and shock-bundler	413,756	Oct. 15	1447	378	297
Howard, Albert W., Minneapolis, Minn. Elevator-bucket	416,839	Dec. 10	1029	277	1580
Howard, Daniel W., Cain, Kans. Door	412,921	Oct. 15	1620	438	340
Howard Iron Works. (See Behn, Carl, assignor.)					
Howard, Jacob. (See Foster and Howard.)					
Howard, John W., et al. (See Solano, Remondo, assignor.)					
Howard, Lyman D. (See Clark and Howard.)					
Howard, Lyman D., Brooklyn, N. Y., assignor to Clark-Howard Excavator and Conveyor Company, of New Jersey. Trolley or gatherer for coal-elevators	412,621	Oct. 8	1246	325	351
Howard, Lyman D., Philadelphia, Pa., assignor to Clark-Howard Excavator and Conveyor Company, of New Jersey. Elevator-bucket	413,050	Oct. 15	1875	489	379
Howard, Lyman D., Philadelphia, Pa., assignor to Clark-Howard Excavator and Conveyor Company, of New Jersey. Elevator-bucket	413,060	Oct. 15	1876	490	379
Howard, Lyman D., Philadelphia, Pa., assignor to Clark-Howard Excavator and Conveyor Company, of New Jersey. Elevator-bucket	413,061	Oct. 15	1877	490	379
Howard, Lyman D., Philadelphia, Pa., assignor to Clark-Howard Excavator and Conveyor Company, of New Jersey. Elevator-bucket	413,062	Oct. 15	1878	490	380
Howard, Lyman D., Philadelphia, Pa., assignor to Clark-Howard Excavator and Conveyor Company, of New Jersey. Truck-transferring device	413,063	Oct. 15	1879	490	380
Howard, Matthew N., Brooklyn, N. Y. Machine for treating leather	416,918	Dec. 10	1142	312	1603
Howard, Melvin, Sandwich, Ill. Weather-strip	417,184	Dec. 10	1531	417	1681
Howard Watch and Clock Company, E. (See Carr, Rufus B., assignor.)					
Howard Watch and Clock Company, E. (See Learned, William B., assignor.)					
Howd, Charles B., assignor to L. L. Loomer's Sons, Bridgeport, Conn. Corset	414,542	Nov. 5	553	142	851
Howd, Daniel H., Paterson, N. J. Combined photographic and card file	416,621	Dec. 3	702	191	1511
Howe, Halleck. (See North and Howe.)					
Howe, John B., Danbury, Conn. Hat-poucing machine	414,415	Nov. 5	347	87	808
Howell, Robert R., Minneapolis, Minn. Straw-carrier for thrashing-machines	416,785	Dec. 10	946	255	1563
Howes, Albert P., assignor of two-thirds to E. Converse and A. T. Matthews, Worcester, Mass. Fanecet	417,916	Dec. 24	2643	697	1911
Howes, Albert P., assignor of two-thirds to E. Converse and A. T. Matthews, Worcester, Mass. Fanecet	417,917	Dec. 24	2644	698	1911
Howgate, Joseph W., Wilmington, Del. Crutch	415,511	Nov. 19	2962	535	1152
Howgate, Joseph W., Wilmington, Del. Thill-coupling	417,642	Dec. 17	2236	594	1294
Howland, William H., Bergenfield, N. J. Stone-crasher	417,918	Dec. 24	2645	698	1912
Hoyt, Benjamin R., and L. Fracher, Detroit, Mich. Safety-gate for draw-bridges	418,027	Dec. 24	2817	743	1945
Hoyt, Dennis A., St. Cloud, Minn. Lawn-sprinkler	418,181	Dec. 31	3071	806	2001
Hoyt, George E., San Francisco, Cal. Collar-stuffing machine	417,560	Dec. 17	2123	566	1601
Hoyt, John, Manchester, N. H. Pulp washing and bleaching machinery	412,258	Oct. 8	696	184	145
Hoyt, Richard H., Buffalo, N. Y. Sawing-machine	415,717	Nov. 26	2389	623	1224
Hubbard, Daniel, Oswego, N. Y. Stove	412,505	Oct. 8	1064	278	215
Hubbard, Joseph D., Chicago, Ill. Cabinet-file	415,782	Nov. 26	2484	748	1949
Hubbard, Richard W., Ashtabula, Ohio. Husking implement	414,543	Nov. 5	554	142	851
Hubbell, Thomas J., assignor of one-half to W. H. Wolfe, Santa Clara, Cal. Universal ladder	416,622	Dec. 3	706	191	1511
Huber, Anthony, New York, N. Y. Spring bed-bottom	412,506	Oct. 8	1066	278	216
Huber, Berthold, assignor to Huber Printing Press Company, Taunton, Mass. Cylinder printing press	416,786	Dec. 10	947	256	1563
Huber, Berthold, assignor to Huber Printing Press Company, Taunton, Mass. Cylinder printing press	417,826	Dec. 24	2318	663	1887
Huber, Edward, Marion, Ohio. Steam-engine	414,045	Oct. 29	3350	873	688
Huber, Ernst. (See Wieschebeck and Huber.)					
Huber, Frederick, Downingtown, Pa. Clamp	417,919	Dec. 24	2646	699	1912
Huber, Jeremiah S., Priebeburg, Pa. Reversible plow	412,091	Oct. 1	448	116	90
Huber, Joseph L., Hamburg, Germany. Gearing	418,516	Dec. 31	3583	935	2106
Huber Printing Press Company. (See Huber, Berthold, assignor.)					
Huckins, Daniel J. (See Vose and Luckins.)					
Hudner, Frank J. (See Preston, Hudner, and Kelley.)					
Hudner, Frank J. (See Preston and Kelley, assignors.)					
Hudson, John G., Tradesmen, counties of Lanark and Renfrew, Scotland. Sugar-mill	416,623	Dec. 3	707	191	1511
Huenke, Louis, New Bremen, Ohio. Creaming-can	413,665	Oct. 29	2726	724	573
Huff, George E., Hartford, Conn. Screw-clear for electric wires	418,368	Dec. 31	3356	876	2005
Huff, George E., Hartford, Conn. Screw-clear for electric wires	418,465	Dec. 31	3497	915	2087
Huffman, Orlando, assignor of one-half to J. and P. C. Larsen and G. and N. Deinas, Friend, Nebr. Barbed fence	418,617	Dec. 31	3733	976	2135
Huggins, Robert T., Florence, S. C. Tricycle	414,046	Oct. 29	3352	873	689
Huggins, William, Bushnell, Mich. Seed-drill	414,707	Nov. 12	816	213	909
Hughes, Edward W. M., assignor to Fox Solid Pressed Steel Company, Chicago, Ill. Metallic railway-car	417,786	Dec. 24	2459	647	1876
Hughes, Edward W. M., assignor to Fox Solid Pressed Steel Company, Chicago, Ill. Locomotive smoke-stack	418,182	Dec. 31	3072	806	2001
Hughes, Edward W. M., assignor to Fox Solid Pressed Steel Company, Chicago, Ill. Running-board for locomotives	418,287	Dec. 31	3223	843	2031
Hughes, John H., Westley, E. L. Coleman	413,368	Oct. 22	3206	812	475
Hughes, Patrick K., assignor of one-half to W. J. Parmelee, Wilkes-Barre, Pa. Axle	413,943	Oct. 29	3196	835	657
Hughes, William F., Black Lick, Va. Harrow	414,647	Oct. 29	3353	874	689
Hughlett, Joe A., Fulton, Ky. Wagon-bed raiser	416,627	Nov. 26	2392	757	1229
Hutt, Richard W., New York, N. Y. Soldier	417,643	Dec. 17	2237	594	1294
Hull, Robert C., Baltimore, Md. Electric switch	413,512	Oct. 22	2963	664	519

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.
			Spec.	Dr. u.	Vol. Page.
Hall, Thomas H. (See Hollister and Hull.)					
Hall, William S. (See Anderson and Hall.)					
Hall, William S., Sheffield, Ala. Means for concealing rivets, &c., in jails, &c.	416,187	Dec. 10	948	256	49 1564
Hall, Wolcott, New York, N. Y. Yacht-sail.	413,944	Oct. 29	3197	835	49 657
Hammel, David, Jr. (See Bergh and Hammel.)					
Humphrey, Henry H., Detroit, Mich. Sewing-machine for making loop-stitch linings.	411,894	Oct. 1	175	45	49 35
Humphrey, Seth K., Faribault, Minn. Elevator	412,956	Oct. 15	1734	451	49 349
Humphrey, Thomas, New York, N. Y. Head-rest for hammocks.	414,316	Nov. 5	205	51	49 779
Humphreys, Alexander C., Philadelphia, Pa., assignor to Welsh Incandescent Gas Light Company, of New Jersey. Gas-burner for incandescent illumination.	416,624	Dec. 3	709	192	49 1511
Humphreys, William P., San Francisco, Cal., assignor to C. Dodge, Washington, D. C. Dredging apparatus.	417,185	Dec. 10	1532	417	49 1661
Humphreys, William P., San Francisco, Cal., assignor to C. Dodge, Washington, D. C. Dredging apparatus.	417,186	Dec. 10	1534	418	49 1661
Humphreys, William P., San Francisco, Cal., assignor to C. Dodge, Washington, D. C. Support for dredging-conduits.	417,187	Dec. 10	1536	418	49 1652
Hungerford Company. (See Hungerford, George S., assignor.)					
Hungerford, George S., Syracuse, assignor to Hungerford Company, New York, N. Y. Apparatus for use in connection with coffee-roasters.	412,388	Oct. 8	889	222	49 181
Hungus, Frederick H., New York, N. Y. Cabinet-bedstead.	415,945	Nov. 26	2732	714	49 1295
Hungus, Frederick H., New York, N. Y. Cabinet-wash-stand.	416,819	Dec. 10	1145	313	49 1004
Hunsicker, Henry J. (See Weirick, Jacob R., assignor.)					
Hunt, Charles E., et al. (See Ferris, Henry L., assignor.)					
Hunt, Charles W., West New Brighton, N. Y. Connection for car-axle boxes.	412,028	Oct. 1	364	94	49 73
Hunt, George G., Bristol, assignor to Plano Manufacturing Company, Chicago, Ill. Har-vestor.	413,065	Oct. 15	1879	491	49 380
Hunt, Helm & Ferris. (See Ferris, Henry L., assignor.)					
Hunt Machine Company, Rodney. (See Dunbar and Gibbs, assignors.)					
Hunt, Marshall E., assignor of one-half to H. P. Goodwin and A. M. Dedrick, Davenport, Iowa. Cultivator.	411,812	Oct. 1	54	15	49 14
Hunt, Randall, San Francisco, Cal. Fastening grillages, platforms, or foundations of structures to piles or other materials.	412,757	Oct. 15	1450	379	49 208
Hunter, Alexander, Muskegon, Mich. Can-opener.	417,032	Dec. 10	1303	355	49 1636
Hunter & Comstock Arms Company. (See Comstock, Harry, assignor.)					
Hunter, David E., Salem, Mass., assignor to Pope Manufacturing Company, Portland, Me. Velocipede.	414,048	Oct. 29	3355	874	49 689
Hunter, George E. (See Corbelle, Fred H., assignor.)					
Hunter, George E., Elgin, assignor to Elgin National Watch Company, Chicago, Ill. Cannon-pinion for watches.	417,644	Dec. 17	2238	594	49 1834
Hunter, Irish S., Russell County, Ala. Ceiling-clamp.	417,677	Dec. 24	2574	678	49 1898
Hunter, James H. (See Winnick, Frederick G., assignor.)					
Hunter, James H., New York, N. Y. Electric danger-alarm for railway block-signals.	417,188	Dec. 10	1537	418	49 1662
Hunter, John, Kingston, Ontario, Canada. Fence-wire stretcher.	416,840	Nov. 19	2271	592	49 1143
Hunter, Randolph M., Philadelphia, Pa., assignor, by mesne assignments, to Thomson-Houston Electric Company, Boston, Mass. Electric railway.	413,604	Oct. 22	2699	702	49 545
Hunter, Randolph M., Philadelphia, Pa., assignor, by mesne assignments, to Thomson-Houston Electric Company, Boston, Mass. Electric railway.	414,040	Oct. 29	3357	875	49 690
Hunter, Randolph M., Philadelphia, Pa., assignor, by mesne assignments, to Thomson-Houston Electric Company, Boston, Mass. Electric railway.	414,050	Oct. 29	3361	875	49 691
Hunter, Randolph M., assignor to Electric Car Company of America, Philadelphia, Pa. Electric heating apparatus for electric railways.	417,920	Dec. 24	2647	699	49 1912
Hupfeld, Heinrich. (See Schmauer and Hupfeld.)					
Hurl, Judson B., San Antonio, Tex. Hoisting-machine.	416,840	Dec. 10	1030	277	49 1580
Hurl, Judson B., and H. H. McLane, San Antonio, Tex. Flexible hoe and cotton-chopper.	418,183	Dec. 31	3072	806	49 2001
Hurlford, Oliver P., assignor to J. P. Black, Chicago, Ill. Non-conducting lining.	412,507	Oct. 8	1067	278	49 216
Hurlburt, Kellogg T., Lakewood, N. J. Folding chain.	412,338	Oct. 8	890	212	49 166
Hurlburt, Kellogg T., Lakewood, N. J. Plate or dish holder.	416,394	Dec. 3	166	45	49 1401
Hurst, Josiah N., et al. (See Botsford, Frederick G., assignor.)					
Huse, Warren D. (See Carr, Charles F., assignor.)					
Huse, Warren D., and G. F. Carr, Laconia, N. H. Circular-knitting machine.	413,142	Oct. 15	2007	523	49 405
Hussey, Charles A., New York, N. Y. Electric battery.	414,317	Nov. 5	206	51	49 779
Hussey, Charles A., New York, N. Y. Battery-carbon.	414,318	Nov. 5	206	51	49 779
Hussey, Charles A., New York, N. Y. Electric battery.	414,318	Nov. 5	206	51	49 779
Hussey, Joseph. (See Herr, Thomas G., assignor.)					
Hussey, Levi, New York, N. Y. Resistor.	418,566	Dec. 31	3659	957	49 2159
Hussey, Marcus L. M., Menlo Park, N. J. Electric pendulum-driven clock.	413,281	Oct. 22	2222	578	49 453
Hussey, Timothy B., North Berwick, Me. Harrow attachment.	418,517	Dec. 31	3585	935	49 2106
Husted, Oscar M., Holly, Mich. Fence-making machine.	414,319	Nov. 5	207	52	49 779
Huston, Charles L., Coatesville, assignor to J. D. Newhold, Norristown, Pa. Device for clamping plates or sheets of metal.	413,045	Oct. 29	3198	836	49 657
Hutchins, Charles H., et al. (See Susemihl, Francis G., assignor.)					
Hutchins, Eugene, et al. (See Susemihl, Francis G., assignor.)					
Hutchins, Eugene E., et al. (See Susemihl, Francis G., assignor.)					
Hutchins, George F., assignor to Knowles Loom Works, Worcester, Mass. Loom.	413,369	Oct. 22	2368	613	49 479
Hutchins, George F., assignor to Knowles Loom Works, Worcester, Mass. Stopping and brake-operating mechanism for looms.	416,625	Dec. 3	709	192	49 1512
Hutchins, George F., assignor to Knowles Loom Works, Worcester, Mass. Let-off mechanism for looms.	417,033	Dec. 10	1304	356	49 1636
Hutchins, Milton, Arlington, Mass. Truss.	416,901	Nov. 26	2607	737	49 1312
Hutchinson, George T., Edgar, Neb. Wheel-wrench.	414,771	Nov. 12	901	223	49 925
Hutchinson, Henry, London, England. Furnace for casting ores.	414,651	Oct. 29	3365	875	49 692
Hutto, George W., Granbury, Tex. Cotton chopper and cultivator.	412,850	Oct. 15	1569	409	49 320
Hyams, Hyam J., Pittsburg, Pa. Proportional gas-meter.	413,670	Oct. 29	2776	728	49 575
Hyatt, Henry O., Kingston, N. C. Knock-down crate.	417,561	Dec. 17	2125	546	49 1902
Hyatt, John W., Newark, N. J. Granular filter-bed.	417,637	Dec. 10	1310	358	49 1638
Hyatt, John W., Newark, N. J. Apparatus for upward filtration.	417,639	Dec. 10	1315	359	49 1638

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.
			Spec.	Dr. & Vol.	
Hyatt, John W., assignor to American Extractor Company, Newark, N. J. Juice-extractor	416,106	Nov. 26	2989	{ 778 779 } 49	1346
Hyatt, John W., assignor to American Extractor Company, Newark, N. J. Making extracts	416,107	Nov. 26	2991	{ 779 780 781 } 49	1347
Hyatt, John W., assignor to American Extractor Company, Newark, N. J. Apparatus for the continuous extraction of fluids	416,108	Nov. 26	2993	780	49 1347
Hyatt, John W., Newark, N. J., assignor to Hyatt Pure Water Company, of New Jersey. Coagulant-feeder	417,034	Dec. 10	1305	356	49 1636
Hyatt, John W., Newark, N. J., assignor to Hyatt Pure Water Company, of New Jersey. Apparatus for feeding reagents	417,035	Dec. 10	1307	357	49 1637
Hyatt, John W., Newark, N. J., assignor to Hyatt Pure Water Company, of New Jersey. Coagulant-feeder	417,036	Dec. 10	1309	497	35 1637
Hyatt, John W., assignor to Hyatt Pure Water Company, Newark, N. J. Filter-strainer.	417,038	Dec. 10	1313	{ 358 359 } 49	1638
Hyatt Pure Water Company. (See Hyatt, John W., assignor.)					
Hyde, Charles E., Bath, Me. Bearing for shafts	414,321	Nov. 5	67	15	49 751
Hyde, Edwin R., and R. C. Horner, assignors to Springfield Cline and Emery Wheel Company, Springfield, Mass. Machine for grinding plane surfaces	416,109	Nov. 26	2995	{ 780 781 } 49	1347
Hyde, James A., Millerton, N. Y. Signal-lantern	415,305	Nov. 19	1579	406	49 1057
Hyde, Robert. (See Wainwright, and Hyde.)					
Hydron, George L., Lacona, N. Y. Holdback for vehicles	413,184	Oct. 22	3075	540	49 424
Hydraulic Elevator Company. (See Baldwin, Cyrus W., assignor.)					
Hyers, Samuel A. (See Jenkins and Hyers.)					
Hysenmann, Samuel M. (See Scheneman, Friedrich, assignor.)					
Iceman, Robert E. L., assignor to W. J. Hooper, Baltimore, Md. Holder for hammock ends.	416,110	Nov. 26	3001	781	49 1348
Ideal Rubber Company. (See Eggeza, Anton C., assignor.)					
Ihsen, Georg, Hanover, Germany. Cupola and blast furnace	415,306	Nov. 19	1580	400	49 1057
Ilsener, Charles F. (See Voni Hofe, Julius, assignor.)					
Illingworth, Frederick, Bradford, county of York, England. Device for reciprocating the drawing-off rolls of combing-machines	414,884	Nov. 12	1080	277	49 950
Illingworth, John, Newark, N. J. Apparatus for casting ingots	414,841	Nov. 12	1005	{ 280 281 } 49	946
Illinois Steel Company. (See Smith and Pettigrew, assignors.)					
Immsch, Moritz, London, county of Middlesex, England. Regulating electric motors	414,652	Oct. 29	3368	876	49 693
Improved Zig-Zag Gate Bar Company. (See Boileau, Etienne, assignor.)					
Inch, Philip J., U. S. Navy. Carbureting iron	415,513	Oct. 29	2566	480	49 519
Innes, Ambrose, and P. Lyston, Baltimore, Md. Car-axle box and lubricator	413,066	Oct. 15	1883	493	49 381
Ingersoll Rock Drill Company. (See Sergeant, Henry C., assignor.)					
Ingle, Jacob O., Jr., Ireddell, Tex. Remedy for neuralgia	411,921	Oct. 1	209		49 43
Ingram, William W., Chicago, Ill. Apparatus for clipping, separating, and grading oats, &c.	413,344	Oct. 22	2339	604	49 472
Ingraham, William W., Chicago, Ill. Apparatus for clipping oats, &c.	416,355	Dec. 3	326	781	49 1432
Ingram, James, Lawrence, Mass. Fire-bucket	416,359	Dec. 31	3325	843	49 2832
Innes, Carrie B., Paris, Ky. Alternative iron	413,233	Dec. 22	2153		49 430
Ionia, Robert A. (See Pearce, Walter M., assignor.)					
International Fastening Company. (See English, Analdo M., assignor.)					
International Manufacturing Association. (See Morrell, Henry L., assignor.)					
International Tooth Crown Company. (See Richmond, Cassius M., assignor.)					
Ionia Steam Road Car Company. (See Morrissey and Doyle, assignors.)					
Iron City Manufacturing Company. (See Hein, William, assignor.)					
Iron Clad Manufacturing Company. (See Comstock, Chester, assignor.)					
Iron Clad Manufacturing Company. (See Plancon, Emile, assignor.)					
Irons, Charles F. (See Tallman, Henry C., assignor.)					
Irvin, John B., Sparta, Oreg. assignor of one-half to L. T. Woods, St. Louis, and C. D. Moody, Webster Groves, Mo. Ore-concentrator	416,626	Dec. 3	712	193	49 1512
Irvine, Samuel. (See Smith, Palm and Irvine.)					
Irwin, Charles H., F. I. Hoebe, and J. W. Simmons, Wilmington, Ohio; said Hoebe and Simmons assignors to said Irwin. Anger-bit die	412,957	Oct. 15	1736	470	49 349
Irwin, George M., Pittsburg, Pa. Glass-gold	415,808	Nov. 26	3001	680	49 1206
Irwin, John, Jr., et al. (See McIlbenny, James S., assignor.)					
Isabel, Joseph N., Concord, N. H. Bit attachment	417,486	Dec. 17	1991	531	49 1778
Isbell Machine Company. (See Isbell, Robert H., assignor.)					
Isbell, Robert H., New York, N. Y., assignor to Isbell Machine Company. Hydraulic ram	418,132	Dec. 24	2991	785	49 1976
Iseninger, Daniel H., Bloomington, Ill. Try-square	413,946	Oct. 29	3301	536	49 658
Isherwood, Alfred, New Bedford, assignor to Dutcher Temple Company, Hopedale, Mass. Loom-temple	415,041	Nov. 12	1311	341	49 1004
Isherwood, John J. (See Patterson and Isherwood.)					
Isherwood, John J., assignor to W. F. Patterson, Allegheny, Pa. Making collars for axles and skines	412,329	Oct. 8	893	233	49 181
Ish, Albert, assignor to I. L. Leadia, Lancaster, Pa. Combined rake and tedder	417,040	Dec. 10	1316	360	49 1639
Iusti, Johann A. W., assignor of part to U. L. P. McCormick, A. F. C. Craner, E. Kersten, and C. Kerrison, Jr., Charleston, S. C. Automatic rain-conductor	415,109	Nov. 12	1306	365	49 1023
Ives, Charles, Clinton, N. Y. Nut-lock	414,708	Nov. 12	817	313	49 909
Ives, Charles, Clinton, N. Y. Nut-lock	415,109	Nov. 12	1306	365	49 1023
Ivery, James W., Philadelphia, Pa. Engine-clamp and carrier	412,632	Oct. 8	1247	335	49 351
Jaccard, Henri, Bieme, assignor to L. Marillier-Denzler, Neuveville, Switzerland. Water	418,334	Dec. 31	3364	893	49 3048
Jackman, George W., assignor to himself and I. Parker & Co., Littleton, N. H. Glove-fastener	413,399	Oct. 22	2406	623	49 487
Jackman, George W., assignor to himself and I. Parker & Co., Littleton, N. H. Glove-fastener	416,678	Dec. 3	791	216	49 1527
Jackman, Charles A., Billerica, Mass. System for electric conductors for electric cars	411,989	Oct. 1	305	79	49 62
Jackman, Edwin A., New York, N. Y. Ventilating grate	418,181	Dec. 31	3074	867	49 2001
Jackman, George C., Danabore, Pa. Apparatus for regulating the flow of gas or fluid by steam-pressure	416,061	Nov. 26	2993	{ 757 758 } 49	1330
Jackman, George C., Danabore, Pa. Apparatus for regulating the flow of gas or fluid by steam-pressure	416,061	Nov. 26	2994	{ 757 758 } 49	1330
Jackman, John, Grand Cane, La. Stock-gate for railways	417,248	Dec. 17	1624	439	49 1708
Jackman, John F. (See Partello and Jackson.)					
Jackman, John H., El Dorado Springs, Mo. Barber's-chair register	416,627	Dec. 3	713	193	49 1512
Jackman, Johnson A. (See Hannahs, Fred C., assignor.)					
Jackman, Joseph M. (See Ken and Jackson.)					
Jackman, Joseph R., Pittsburg, Pa. Manufacturing sheet metal	418,370	Dec. 31	3357	876	49 2058

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. &c.	Vol.	Page.
Jackson, Joseph R., Pittsburgh, Pa. Manufacturing sheet metal	418,371	Dec. 31	3329	876	49	2058
Jackson, Manetho C., Denver, Colo. Mechanical movement	415,763	Nov. 26	2485	649	49	1343
Jackson, Oliver P., Victor, assignor to H. Campbell and W. H. H. Dickinson, Missoula, Mont. Churn	418,195	Dec. 31	3076	807	49	9001
Jacobs, Bernhard N. J., Chicago, Ill. Vacuum refrigerator	416,788	Dec. 10	950	256	49	1564
Jacobs, Gabriel A., Red Creek, N. Y. Window-screen	413,165	Oct. 22	3075	541	49	424
Jacobs, Jacob, New York, N. Y. Illuminating-tile	418,618	Dec. 31	3734	976	49	2135
Jacobs, James H., Brockton, Mass. Cast-off for wax-thread sewing-machines	416,841	Dec. 10	1693	377	49	1550
Jacobs, Luman W., Warren, Mass. Miter-box	414,544	Nov. 5	555	142	49	851
Jacobs, Wilbert B., Grove City, Pa. Double-acting pump	416,035	Nov. 26	2968	750	49	1323
Jacoby, Cornelia M., assignor of one-half to H. L. Haydel, St. Louis, Mo. Spray attachment for brooms	412,092	Oct. 1	449	116	49	90
Jacques, William W., Newton, Mass. Phonograph	413,382	Oct. 22	2238	579	49	455
Jaeger, Charles L., New York, N. Y. Governor for electric motors	415,641	Nov. 19	2372	592	49	1193
Jaenig, Carl, assignor of one-half to M. Pauly, San Francisco, Cal. Hinge	412,093	Oct. 1	450	117	49	90
Jagger, Joseph, Rifton Glen, N. Y. Carpet fabric	418,412	Dec. 31	3419	893	49	2072
James, Edward B., Thomsville, Ga. Plow	415,349	Nov. 19	1633	431	49	1068
James, George A., San Francisco, Cal. Photographic-printing frame	412,094	Oct. 1	450	117	49	90
James, Henry, New Haven, Conn. Boring undercut holes in metal	412,508	Oct. 8	1008	279	49	216
Jandorf, Moses, et al. (See Boyle, Homer L., assignor.)						
James, Herman. (See James, Herman D., assignor.)						
James, Herman D., Cleveland, Ohio, assignor to H. James, Erie, Pa. Sash-fastener	417,808	Dec. 24	2575	678	49	1899
Janney, Eli H., near Alexandria, Va. Uncoupling device for railway-cars	412,259	Oct. 8	699	184	49	145
Janssen, Edouard. (See Janssen, Gustave and E.)						
Janssen, Gustave and E., assignors to E. Schneider & Company, Chicago, Ill. Distilling grease and other fatty substances	414,709	Nov. 12	818	213	49	909
Jansson, Gustaf, Munkfors, Sweden, assignor of one-half to C. H. Morgan, Worcester, Mass. Rod-rolling mill	415,784	Nov. 26	2487	649	49	1343
Japhet, Charles A., Winchester, Kans. Washing machine	414,770	Nov. 12	819	213	49	909
Jacques, Eugene F., Burton, Ohio. Dental anesthetic	418,567	Dec. 31	3661	919	49	2120
Jaguth, Jonathan S., Sierra City, Cal. Tool-handle	412,390	Oct. 8	894	233	49	181
Jarrell, Charles W., Shelby, Ala. Gas-washer	412,354	Oct. 22	2567	665	49	519
Jarrell, Charles W., Shelby, Ala. Gas-washer	413,515	Oct. 22	2566	665	49	519
Jarrell, Edwin, assignor of one-half to J. W. and H. W. McMunn, Harper, Kans. Torsion-spring for vehicles	417,041	Dec. 10	1319	361	49	1639
Jarvis, John G., Zylonite, Mass., assignor to American Zylonite Company, New York, N. Y. Ornamenting articles having a pyroxyline base	417,727	Dec. 24	2363	593	49	1857
Jauch, Joseph, assignor to Bradley & Hubbard Manufacturing Company, Meriden, Conn. Central-draft lamp	412,958	Oct. 15	1739	432	49	350
Jayne, William H., assignor of one-half to G. S. French, Chicago, Ill. Device for shifting the platens of type-writers	418,319	Dec. 31	3276	856	49	2043
Jeffery, Thomas H., et al. (See Cottle, Luther M., assignor.)						
Jeffrey, Harry, Ludlow, Ky., assignor of one-half to F. Hoeftle, Meridian, Miss. Tube-welding furnace	412,187	Oct. 1	590	153	49	118
Jeffrey, Joseph A. (See Taplin, John L., assignor.)						
Jeffries, James P., et al. (See May, Thomas, assignor.)						
Jendral, Charles, Savannah, Ga. Window-screen	412,623	Oct. 8	1247	325	49	251
Jenckes, John. (See Kelly, William H., assignor.)						
Jenkins, Arthur M., Norristown, Pa. Grain-binder	413,283	Oct. 22	2231	579	49	455
Jenkins, George H., and S. A. Hyers, assignors to Shea, Smith & Company, Chicago, Ill. Copying-bath	418,288	Dec. 31	3224	843	49	2032
Jenkins, Maury D., Harrisburg, Pa. Sanding apparatus for locomotives	418,568	Dec. 31	3661	917	49	2120
Jenkins, Wilton F., Richmond, Va. Trolley-holder	416,920	Dec. 10	1146	313	49	1094
Jenks, Edward A., Newport, N. H. Means for maintaining the gauge of railway-trucks	412,260	Oct. 8	701	185	49	145
Jenks, William H., Brookville, Pa. Engine-governor	417,728	Dec. 24	2363	622	49	1858
Jenno, Charles H., Indianapolis, Ind., assignor to Dayton Indicator Co., Dayton, Ohio. Street or station indicator	414,977	Nov. 12	1218	317	49	986
Jenney, Charles D., Indianapolis, Ind., assignor to Thomson-Houston Electric Company, of Connecticut. Automatic regulator for dynamos	417,487	Dec. 17	1992	532	49	1778
Jennings, Benjamin F. K. (See King and Jennings.)						
Jennings, Charles P., Bradford, Pa. Micrometer-callipers	413,516	Oct. 22	2570	665	49	520
Jennings, Ebenezer S., assignor to Nelsonville Foundry and Machine Company, Nelsonville, Ohio. Drive-chain	414,416	Nov. 5	302	89	49	812
Jennings Lace Works. (See Carrier, Enoch, assignor.)						
Jennings, Peter, Menasha, Wis. Pulley	413,723	Oct. 29	2871	749	49	589
Jennings, Simon H. (See Shaler, Henry L., assignor.)						
Jensen, Anders, Oakfield, Iowa. Wire-fence machine	417,249	Dec. 17	1625	440	49	1709
Jernberg, Gustaf, Rockford, Ill. Finger-bar for mowers	413,755	Oct. 29	2915	759	49	598
Jerome, Charles C., Chicago, Ill. Piston-rod packing	418,518	Dec. 31	3285	936	49	2106
Jerome, Samuel B., New York, N. Y. Pavement	412,361	Oct. 8	702	185	49	146
Jewell, Augustus, Dowagiac, Mich. Sheaf-carrier	414,909	Nov. 12	1115	288	49	960
Jewell, Frederick, Peckham, county of Surrey, England. Mechanical toy	413,517	Oct. 22	2571	666	49	520
Jewell, Ira H. (See Jewell, Omar H. and I. H.)						
Jewell, Major R., assignor to Office Specialty Manufacturing Company, Rochester, N. Y. Paper-file	412,024	Oct. 8	1248	325	49	251
Jewell, Major R., assignor to Office Specialty Manufacturing Company, Rochester, N. Y. File-box	412,625	Oct. 8	1250	326	49	251
Jewell, Major R., assignor, by mesne assignments, to Office Specialty Manufacturing Company, Rochester, N. Y. Roller copying-press	416,628	Dec. 3	714	193	49	1513
Jewell, Omar H., assignor to Jewell Pure Water Company, Chicago, Ill. Check-valve for water-filters, &c.	418,335	Dec. 31	3704	864	49	2048
Jewell, Omar H. and I. H., Chicago, Ill. Filter	418,186	Dec. 31	3077	807	49	2029
Jewell, Omar H. and I. H., assignors to Jewell Pure Water Company, Chicago, Ill. Water-filter	413,671	Oct. 29	2802	729	49	576
Jewell Pure Water Company. (See Jewell, Omar H., assignor.)						
Jewell Pure Water Company. (See Jewell, Omar H. and I. H., assignors.)						
Jewett & Co., Sherman S. (See Galbraith, Robert, assignor.)						
Jewett, Fred S., Lacombe, N. H. Shelf-bracket	418,466	Dec. 31	3498	915	49	2067

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Jewett, Luther K., Boston, Mass., assignor to Jewett Supply Company, Portland, Me. Bearing for railway-cars. (See Jewett, Luther K., assignor.)	418,028	Dec. 24	2819	744	49	1945
Jillison, Clark, Worcester, Mass. Steam-generator.....	418,187	Dec. 31	3079	808	49	2002
John, William D., Scranton, Pa. Tube-expander.....	417,323	Dec. 17	1740	468	49	1730
Johns, Henry W., New York, N. Y. Roofing fabric.....	417,319	Dec. 31	3357	936	49	2107
Johns, Henry W., New York, N. Y. Roofing-sheet.....	418,360	Dec. 31	3693	938	49	2121
Johns, John B. and R. Findlay, Ohio. Clothes-line support.....	418,413	Dec. 31	3420	893	49	2072
Johns, Robert. (See Johns, John B. and R.)						
Johnson, Albert E., assignor of one-half to C. H. Porter, Brockton, Mass. Groove-butting attachment for sewing-machines.....	412,188	Oct. 1	591	154	49	1118
Johnson, Albert S., Girard, Kans. Door-check.....	416,365	Dec. 3	322	83	49	1432
Johnson, Alexander, Watertown, N. Y. Bean-harvester.....	418,188	Dec. 31	3081	808	49	2002
Johnson, Arthur H., Rahway, N. J. Detector-bar.....	416,921	Dec. 10	1146	314	49	1604
Johnson, Arthur J., Rahway, N. J. Bridge-coupling for switch-roads, &c.....	415,988	Nov. 19	1854	478	49	1150
Johnson, Charles C., Springfield, Vt., assignor to Morgan Envelope Company, of Massachusetts. Toilet-paper holder.....	416,842	Dec. 10	1033	273	49	1589
Johnson, Charles S., F. V. and M. A. Barler, said M. A. Barler assignor to L. A. Buckingham, Norwich, Conn. Malt-stirring machine.....	417,468	Dec. 17	1994	533	49	1779
Johnson Company. (See Goughnour, Henry S., assignor.)						
Johnson, David K., Milwaukee, Wis. Coffin.....	417,042	Dec. 10	1330	361	49	1640
Johnson, Ernest V., Chicago, Ill. Elevated railway.....	418,189	Dec. 31	3082	808	49	2002
Johnson, Frank G., New York, N. Y. Portable railway-switch.....	413,186	Oct. 22	3077	541	49	424
Johnson, Frost, assignor of two-thirds to E. G. Selchow, New York, and W. H. Walker, Albany, N. Y. Protractor.....	418,133	Dec. 31	3081	783	49	1977
Johnson, Henry, Washington, D. C. Bill-board.....	417,043	Dec. 10	1321	361	49	1640
Johnson, Isaac L., assignor of one-half to O. T. Thompson, Washington, D. C. Electric subways.....	412,695	Oct. 1	452	117	49	91
Johnson, Isaac L., assignor of one-half to O. T. Thompson, Washington, D. C. Ventilating subways.....	415,110	Nov. 12	1307	365	49	1023
Johnson, James M., administrator. (See Long, Richard.)						
Johnson, James N., Decatur, Ill. Hand-power motor for street-cars.....	412,922	Oct. 15	1681	430	49	340
Johnson, John W., St. Elizabeth, Me. Churn-power.....	415,111	Nov. 12	1308	365	49	1024
Johnson, Joseph W., assignor to Philadelphia Hardware and Malleable Iron Works, Philadelphia, Pa. Hot-air register.....	411,990	Oct. 1	306	79	49	62
Johnson, Julius A., et al. (See Houtz, Edward, assignor.)						
Johnson, Louis K., and A. A. Low, Brooklyn, assignors to Alden Type Machine Company, New York, N. Y. Composer's cabinet.....	413,449	Oct. 22	3471	641	49	1057
Johnson, Luther M., et al. (See Smith, George A., assignor.)						
Johnson, Robert W., Elizabeth, N. J. Glue compound.....	415,207	Nov. 19	1581		49	1507
Johnson, Robert W., Elizabeth, N. J. Ointment.....	415,209	Nov. 19	1581		49	1507
Johnson, Thomas J., and J. L. Mitchell, Youngsboro, Tex. Cotton-planter.....	415,042	Nov. 12	1311	741	49	1035
Johnson, Thomas T., et al. (See Smith, George A., assignor.)						
Johnson, Tom L., Cleveland, Ohio. Tower-wagon for electric street-car service.....	414,223	Nov. 5	69	16	49	732
Johnson, Tom L., Cleveland, Ohio. Hinged pan for protecting electric motors for cars.....	416,366	Dec. 3	323	84	49	1432
Johnson, Tom L., Cleveland, Ohio. Street-car coupler.....	416,367	Dec. 3	323	84	49	1432
Johnson, William, Leeds, county of York, England. Brick-machine.....	415,343	Nov. 19	1790	465	49	1098
Johnston, John S., et al. (See Gadberry, Harvey O., assignor.)						
Johnston, Lysander, assignor of one-half to R. Clapp, Waco, Tex. Elevated suspension railway.....	415,309	Nov. 19	1582	407	49	1057
Johnston, William, Seymour, Conn., assignor of one-half to E. J. Hickey, Hyde Park, Mass. Furnace.....	418,570	Dec. 31	3664	958	49	2121
Johnston, William C., Jr., Lynn, Mass. Electric circuit-closing device.....	412,738	Oct. 15	1451	370	49	208
Johnstone, William H. (See Ward, George H., assignor.)						
Joliet Steel Company. (See Smith and Pettigrew, assignors.)						
Jones, Charles, Woodford, assignor to J. Childs, London, England. Heating vessels or chambers by steam.....	417,189	Dec. 10	1540	419	49	1682
Jones, Charles E., guardian. (See Scott, John E., assignor.)						
Jones, Charles W., Junction, Va. Frogless switch.....	411,991	Oct. 1	308	79	49	63
Jones, Frederick R., Huddersfield, county of York, England. Smoke-preventer.....	417,921	Dec. 24	3650	699	49	1913
Jones, George and J. L. Chattanooga, Tenn. Ratchet-drill.....	415,359	Oct. 8	1060	279	49	216
Jones, Horace D., assignor of one-half to P. Brubaker, Germany, Ohio. Holder for brooms, &c.....	414,653	Oct. 29	3370	876	49	693
Jones, Itabner M., Elm Mott, Tex. Car-coupling.....	415,295	Nov. 19	1717	447	49	1084
Jones, J. Russell, et al. (See Norcross, Linnaeus B., assignor.)						
Jones, Jefferson P., Waldron, assignor to G. W. Hill and P. C. Mason, Ransom, Mich. Permutation-lock.....	416,629	Dec. 3	717	194	49	1513
Jones, John B., Brooklyn, N. Y. Fan.....	413,518	Oct. 22	3573	667	49	520
Jones, John B., Battle Creek, Mich., assignor of one-half to M. E. Fisher, Chicago, Ill. Spring bed-bottom.....	416,679	Dec. 3	792	217	49	1397
Jones, John E., New York, N. Y. Weather-strip.....	411,992	Oct. 1	309	80	49	63
Jones, John L. (See Jones, George and J. L.)						
Jones, John K., Philadelphia, Pa. Machine for forming axle-journals.....	412,696	Oct. 8	1251	326	49	252
Jones, Jordan F., Laurel, N. C. Tobacco-hanger.....	417,869	Dec. 24	2577	679	49	1896
Jones & Lamson Machine Company. (See Hartness and Spaulding, assignors.)						
Jones, Levi J., Dalton, Mass. Saw-and-ratchet mechanism.....	414,545	Nov. 5	557	143	49	832
Jones, Lois O. (See Allen, Napoleon B., assignor.)						
Jones, Lyman D., New York, N. Y. Milk-jar.....	412,330	Oct. 8	821	213	49	166
Jones, Mathias N., Escanaba, Mich. Puzzle.....	413,756	Oct. 29	2916	729	49	398
Jones, Nathaniel S., et al. (See Olen, John B., assignor.)						
Jones, Richard, Houston, Tex. Railway-rail tie.....	417,496	Dec. 17	1893	507	49	1739
Jones, Samuel E., Canon City, Colo. Finger-nail knife.....	415,493	Nov. 19	1976	313	49	1134
Jones, Thomas D., Syracuse, N. Y. Nut-lock.....	415,043	Nov. 12	1313	742	49	1005
Jones, W. H. (See Gipple, Harvey W., assignor.)						
Jones, Washington, Lancaster, Pa. Child's carriage.....	413,802	Oct. 29	2983	777	49	610
Jones, William P. (See Jones, Willis H. and W. P.)						
Jones, Willis H. and W. P., Utica, N. Y. Rotary fan.....	418,190	Dec. 31	3084	809	49	2004
Jönsson, Sven, Copenhagen, Denmark. Centrifugal cream-separator.....	414,644	Nov. 5	712	185	49	881
Jordan, Linwood F., Somerville, Mass. Adjustable support for swinging lamps.....	416,368	Dec. 3	324	85	49	1432
Jordan-Mills Manufacturing Company. (See Miller and Canning, assignors.)						
Jordan, Oswald F., St. Thomas, Ontario, Canada. Guard for railway-bridges.....	413,519	Oct. 22	3574	667	49	520

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Jorgensen, Charles, St. Paul, Minn. Water-bicycle.....	412,391	Oct. 8	895	{ 233 234 }	49	181
Jorgensen, Otto F. A., Helsingfors, Finland, Russia. Crank mechanism.....	416,630	Dec. 3	719	195	49	1513
Jory, John G. (See Reed and Jory.)						
Joslin, William, Cleveland, Ohio. Car-brake.....	412,392	Oct. 8	897	294	49	152
Joslin, William, Cleveland, Ohio. Car-wheel.....	414,223	Nov. 5	70	16	49	752
Joslin, William, Cleveland, Ohio. Gearing.....	415,044	Nov. 12	1314	342	49	1005
Joslin, William, Cleveland, Ohio. Truck for street-railways.....	415,112	Nov. 12	1399	{ 365 366 }	49	1024
Joselyn, John A., Brookfield, Mass. Heel-machine.....	417,645	Dec. 17	2259	295	49	1825
Joy, George A., Bismarck, Dak. Tor. Header attachment for harvesters and binders.....	411,993	Oct. 1	309	80	49	03
Joyce, Jacob O., Dayton, Ohio. Lifting-jack.....	416,631	Dec. 3	721	195	49	1514
Joyce, Joseph L., assignor, by mesne assignments, to Union Waterproof Shoe Company, New Haven, Conn. Boot or shoe.....	417,044	Dec. 40	1323	362	49	1640
Jecker, Jacob, Manchester, county of Lancaster, England. Reed-protector mechanism for fast reed-looms.....	416,167	Dec. 3	29	9, 10	49	1375
Judd, Fred W., Cleveland, Ohio, assignor to Avery Stamping Company, of Ohio. Sheet-metal ear for kettles, &c.....	413,856	Oct. 29	3059	797	49	625
Judd, James L. (See Ward and Judd.)						
Judell, Moritz W. (See Singer and Judell.)						
Judge, Arthur J., St. Louis, Mo. Building block or brick.....	415,642	Nov. 19	2273	593	49	1193
Julian, Henry F., Johannesburg, Transvaal, South Africa, assignor to F. E. Lezard and J. C. Coghlan, trustees. Extracting gold and silver from their ores.....	418,134	Dec. 24	2995	785	49	1977
Julian, William H., assignor to D. O. Myers Manufacturing Company, Springfield, Ohio. Stove-pipe shelf.....	413,590	Oct. 22	2575	667	49	520
Jung, Frederick H., Parkstone, county of Dorset, England, assignor to P. E. Richter, New York, N. Y. Chamber brick-kiln.....	417,729	Dec. 24	2365	{ 623 624 }	49	1858
Jurulich, Max, Jersey City, N. J., assignor to C. P. Stirr, New York, N. Y. Plate-holder for photographic camera.....	417,045	Dec. 10	1324	362	49	1640
Justi, Henry D. (See Rehfsus, George M. O. and J. G., assignors.)						
Justi, Henry D. (See Weirich, George M., assignor.)						
Kacer, Martin V. (See Yocum and Kacer.)						
Kade, Charles, assignor of one-half to W. Kreicher, Chicago, Ill. Rocking-chair attachment.....	412,571	Dec. 31	3666	658	49	2121
Kaestner, Charles, et al. (See Yates, Robert, assignor.)						
Kahn & Brothers, F. & L. (See Carr, Robert S., assignor.)						
Kaiser, Frank E., Cincinnati, Ohio. Machine for trimming and marking cigars.....	415,613	Nov. 19	2274	593	49	1193
Kaiser, Joseph, San Francisco, Cal. Necktie-frame.....	412,923	Oct. 15	1682	439	49	340
Kalisher, Michael J., and J. Maloney, Memphis, Tenn. Expansion-box and key for water or gas pipes.....	414,546	Nov. 5	558	143	49	852
Kaltenbeck, William H., Stamford, N. Y. Monkey-wrench.....	414,772	Nov. 12	901	223	49	925
Kampfe, Frederick, R., and O. Brooklyn, N. Y. Brace for razors.....	414,547	Nov. 5	559	144	49	852
Kampfe, Otto. (See Kampfe, Frederick R., and O.)						
Kampfe, Richard. (See Kampfe, Frederick R., and O.)						
Kane, Frank H., Riverside, assignor of one-half to G. R. Messner, Cincinnati, Ohio. Bung-bushing or faucet-socket.....	412,959	Oct. 15	1731	453	49	350
Kane, Harry H., Boston, Mass. Electro-therapeutic appliance.....	413,274	Nov. 19	1676	434	49	1076
Kane, Maurice, assignor to Warder, Bushnell & Glessner Company, Chicago, Ill. Sheaf-carrier for harvesters.....	413,255	Oct. 22	2179	567	49	444
Kane, Maurice, assignor to Warder, Bushnell & Glessner Company, Chicago, Ill. Mowing-machine.....	416,168	Dec. 3	30	10	49	1375
Kane, Maurice, Chicago, Ill., assignor to Warder, Bushnell & Glessner Company, Springfield, Ohio. Sheaf-carrier.....	415,785	Nov. 26	2488	650	49	1243
Kane, Maurice, Chicago, Ill., assignor to Warder, Bushnell & Glessner Company, Springfield, Ohio. Nut-lock.....	415,786	Nov. 26	2490	650	49	1244
Kane, Patrick H., Oil City, Pa. Pipe-wrench.....	412,096	Oct. 1	453	118	49	91
Kane, Thomas. (See Palmer, John F., assignor.)						
Kangley, John, Streator, Ill. Mining-machine.....	412,362	Oct. 8	704	{ 185 186 }	49	146
Kappler, Anthony, Wilkes-Barre, Pa. Mortising-bit.....	414,978	Nov. 12	1230	318	49	946
Karie, John, Baltimore, Md. Ash-sifter.....	417,562	Dec. 17	2139	566	49	1802
Karrer, Simon C. (See Blankart, John, assignor.)						
Katz, Adolf, Stuttgart, Württemberg, Germany. Ceiling.....	418,336	Dec. 31	3306	864	49	2045
Katsenberg, Jacob, New York, N. Y. Suspenders.....	412,097	Oct. 1	453	118	49	91
Kancher, Robert. (See Frauenberger, George, assignor.)						
Kaufman, James A. (See Kaufman, William J., assignor.)						
Kaufman, Jerry, Wellman, Iowa. Draft-equalizer.....	417,190	Dec. 10	1542	419	49	1683
Kaufman, John J. (See Kaufman, Joseph and J. J.)						
Kaufman, Joseph and J. J., Philadelphia, Pa. Folding clothes-rack.....	416,843	Dec. 10	1034	278	49	1581
Kaufman, William J., assignor of one-half to J. A. Kaufman, Mansburg, Ohio. Wheel-rim-bolting machine.....	418,530	Dec. 31	3589	937	49	2107
Kaufmann, Hermann, Milwaukee, Wis. Lounge.....	412,510	Oct. 8	1071	260	49	217
Kaufmann, Otto, Berlin, Germany. Picture-card.....	412,135	Dec. 24	2997	798	49	1977
Kaulfuss, Paul, Peitz, Germany. Fluid-measuring apparatus.....	417,563	Dec. 17	2139	567	49	1802
Kauts, George, Albany, and L. A. Kauts, Hoosick Falls, N. Y. Mason's hawk.....	416,410	Dec. 3	386	103	49	1446
Kautz, Lewis A. (See Kauts, George and L. A.)						
Kay, Henry E., assignor of one-half to A. S. Palmer, Fall River, Mass. Steam-engine lubricator.....	412,393	Oct. 8	898	234	49	182
Kea, James E., Wilmington, N. C. Device for cooling buildings, &c.....	415,296	Nov. 19	1718	{ 447 448 }	49	1044
Kearney, John, Keene, N. H. Barrel-lining.....	416,224	Dec. 3	105	448	49	1390
Keating, Robert M., Springfield, Mass. Safety-razor.....	416,461	Dec. 3	458	125	49	1402
Keavy, Thomas E., assignor of one-half to A. A. Tillotson, Cleveland, Ohio. Bufling-roll.....	417,730	Dec. 24	2370	624	49	1528
Keck, Milton, and B. M. Miller, Gouverneur, N. Y. Felly-joint holder.....	413,672	Oct. 29	2804	730	49	576
Keeler, George W., Trenton, N. J., assignor of one-half to M. Ebert, Philadelphia, Pa. Window.....	415,946	Nov. 26	2733	715	49	1295
Keene, Samuel D., Providence, R. I., assignor to Arnold & Barber Spool and Bobbin Company, Killybeg, Conn. Ensmeller's apparatus.....	412,853	Oct. 15	1581	412	49	322
Keen, William J., Detroit, Mich. Making patterns.....	412,759	Oct. 15	1450	380	49	298
Keepert, Amos E., assignor of two-thirds to G. A. Schlichter and J. M. Burkhardt, Reading, Pa. Pendant-set watch.....	414,054	Oct. 29	3371	876	49	693
Kehlor, James B. M., St. Louis, Mo. Wheat-sourer.....	415,275	Nov. 19	1676	{ 434 435 }	49	1076

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Vol.	Page.
			Spec.	Deq.		
Keith, James, London, England. Hot-water boiler	412,098	Oct. 1	454	118	49	91
Keith, Nathaniel S., San Francisco, Cal. Regulator for electric motors	416,169	Dec. 3	32	41	49	1375
Keller, Andrew, Jr., and F., assignors of one-third to H. Keller, Toledo, Ohio. Curb-box	419,710	Oct. 8	1373	338	49	276
Keller, Daniel I., St. Louis, Mo. Show-case	416,922	Dec. 10	1148	314	49	1604
Keller, Frank. (See Keller, Andrew, Jr., and F.)						
Keller, Frank, Culbertson, Nebr. Automatic lubricator	416,062	Nov. 26	2906	758	49	1330
Keller, George J., Osceola, Nebr. Alarm-lock	417,731	Dec. 24	2371	624	49	1858
Keller, George J., Osceola, Nebr. Alarm lock	417,732	Dec. 24	2372	625	49	1859
Keller, George J., Osceola, Nebr. Metallic lift-pump	418,191	Dec. 31	3085	809	49	2004
Keller, Henry. (See Keller, Andrew, Jr., and F., assignors.)						
Keller, Jeremiah, assignor to O. Kromer, Sandusky, Ohio. Device for raising and lowering harvesters or grain-binders	412,697	Oct. 8	1253	397	49	250
Keller, John D., San Francisco, Cal. Wind-wheel	412,699	Oct. 1	456	119	49	92
Kelley, Charles B. (See Shufelt, John H., assignor.)						
Kelley, James J. (See Preston and Kelley.)						
Kelley, James J. (See Preston, Hudson, and Kelley.)						
Kelling, Max, New York, N. Y. Fire-proof door	416,265	Dec. 3	167	45	49	1401
Kelling, Max, New York, N. Y. Fire-proof door and casing	416,266	Dec. 3	168	45	49	1401
Kellinger, Samuel M., Mantoloking, N. J. Feeding apparatus for sails	417,334	Dec. 17	1741	468	49	1730
Kellogg & Co., P. P. (See Heywood, Charles H., assignor.)						
Kellogg, Walter P., Syracuse, N. Y. Automatic horse-feeder	415,389	Nov. 19	1855	483	49	1109
Kellogg, Warren T., Cohoes, N. Y. Top roll for spinning machines	414,254	Nov. 5	71	16	49	732
Kellum, John M., Kokomo, Ind. Vignetting-frame	412,511	Oct. 8	1072	280	49	317
Kelly, Charles H. and F., Moscow, Idaho Ter. Whiffletree	414,812	Nov. 12	960	249	49	937
Kelly, Edward K., New York, N. Y. Movable sign	412,394	Oct. 8	899	244	49	184
Kelly, Frank. (See Kelly, Charles H. and F.)						
Kelly, Franklin W., Vermontville, Mich. Picket-fence machine	413,673	Oct. 29	2805	730	49	576
Kelly, George, Chicago, Ill. Flexible wire	413,234	Oct. 22	2152	559	49	439
Kelly, George C., et al. (See Kelly, John, assignor.)						
Kelly, Harold. (See Kelly, John P. and H.)						
Kelly, James. (See Kelly, John, assignor.)						
Kelly, James, assignor to A. Von Schade, Newport, R. I. Foot-power	412,711	Oct. 8	1375	358	49	276
Kelly, John, assignor of one-half to J. Kelly, Chicago, Ill. Water-closet flushing apparatus	415,699	Nov. 26	3001	680	49	1306
Kelly, John P., Saco, and H. Kelly, Biddford, Mo. Tension-regulating device for loom shuttles	417,480	Dec. 17	1936	534	49	1779
Kelly, John W., et al. (See Carpenter, Charles E., assignor.)	417,827	Dec. 24	2519	663	49	1888
Kelly, Orrin, et al. (See Kelly, John, assignor.)						
Kelly, Sylvanus, Fremont, Ohio. Roller-tube cleaner	417,646	Dec. 17	2241	595	49	1825
Kelly, William H., Branford, Vt. Assignor to J. Jencks, Nayatt Point, R. I. Circular-knitting machine	414,863	Nov. 12	1039	262	49	952
Kelsey, Orlando, Blackwood, N. J. Steam-generator	417,325	Dec. 17	1742	468	49	1731
Kelsey Press Company. (See Kelsey and Atwater, assignors.)						
Kelsey, William A., Moriden, Conn. Shears	413,521	Oct. 22	2577	668	49	521
Kelsey, William A., and R. Atwater, assignors to Kelsey Press Company, Meriden, Conn. Machine for cutting and mitering printers' rules	413,522	Oct. 22	2577	668	49	521
Kelsey, William W., Cortland, N. Y. Hot-air furnace	415,870	Nov. 26	3003	690	49	1266
Keltow, August H., Telluride, Colo. Bottle-protector	414,417	Nov. 5	363	89	49	812
Kenn, Stephen A., and J. M. Jackson, Higginsville, Mo. Store-pipe cleaner	414,813	Nov. 12	961	249	49	937
Kempster, Daniel E., Boston, Mass. Horseshoe-nail and blank therefor	417,490	Dec. 17	1999	534	49	1780
Kendall, Charles A., Concord, N. H. Reversible mail-assorting table	413,947	Oct. 29	3302	836	49	628
Kendall, Clarence M., Seward, Pa. Spring-seat for vehicles	412,628	Oct. 8	1254	397	49	252
Kendall, Edward D., Brooklyn, N. Y. Assignor to Western Oil Refining Company, of New York. Freeing malodorous hydrocarbons from offensive odors	413,187	Oct. 22	2079	541	49	425
Kendall, Henry D., Lowell, Mass. Brown dye	413,724	Oct. 29	2973	739	49	589
Kendall, Lorenz, Chicago, Ill. Drain-equalizer	412,363	Oct. 8	708	186	49	147
Kendrick, Charles H., Winchester, N. H. Coagulant-feeder	417,046	Dec. 10	1326	362	49	1641
Kendrick, William F., assignor of one-half to H. L. Glass, Winfield, Iowa. Pot or lid lifter	416,063	Nov. 26	2907	758	49	1330
Kennedy, Charles W., et al. (See Groschwitz, Henry, assignor.)						
Kennedy Dry Press Brick Machine Manufacturing Company. (See Kennedy, Lewis B., assignor.)						
Kennedy, Guy L., assignor, by mesne assignments, to Merchants Roll Paper Supply Company, Chicago, Ill. Paper printing and cutting holder	413,803	Oct. 29	2984	778	49	010
Kennedy, Guy L., assignor, by mesne assignments, to Merchants Roll Paper Supply Company, Chicago, Ill. Paper-lag holder	415,463	Nov. 19	1977	513	49	1134
Kennedy, John H. (See Hanson, Hans M., assignor.)						
Kennedy, Julian, and H. Aiken, Homestead, Pa. Hydraulic crane	412,851	Oct. 15	1571	410	49	320
Kennedy, Julian, Latrobe, and H. Aiken, Homestead, Pa. Rolling-mill	412,852	Oct. 15	1578	412	49	321
Kennedy, Lewis B., St. Louis, Mo. Assignor to Kennedy Dry Press Brick Machine Manufacturing Company, Pueblo, Colo. Brick machine	414,055	Oct. 29	3373	877	49	623
Kennedy, Patrick, and C. J. Diss, Brooklyn, N. Y. Secondary battery	415,327	Nov. 19	1745	458	49	1094
Kenneweg, Christian F. (See Colwell, Evander N., assignor.)						
Kenneth, James, Newark, N. J., assignor to Prentiss Vise Company, of New York. Wrench attachment	418,521	Dec. 31	3590	937	49	2107
Kenney, Thomas M., Cambridge, Mass., assignor to American Store Service Company, New York, N. Y. Cash-carrier	416,923	Dec. 10	1148	314	49	1605
Kenney, Thomas M., Cambridge, Mass., assignor to American Store Service Company, New York, N. Y. Cash-carrier	416,924	Dec. 10	1150	315	49	1605
Kenoher, Benjamin, Huron, Cal. Propelling mechanism for boats	414,711	Nov. 12	820	214	49	919
Kensett, James W., assignor of one-third to A. B. Emmons, Newport, R. I. Metallic fire-proof structure	417,250	Dec. 17	1936	441	49	1709
Kest, Artemas A., assignor of one-half to H. C. Pfister and J. D. Stewart, San José, Cal. Bit-stock	417,564	Dec. 17	2128	567	49	1802
Kenyon, Joseph S., South Bend, Ind. Sandpapering-roller	414,115	Oct. 29	3454	897	49	711
Kepler, John M., Corry, Pa. Fishing-reel	412,629	Oct. 8	1254	397	49	252

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. G.	Vol.	Page.
Kern, Edwin A., Warren, Ohio. Furnace-door	415,512	Nov. 19	3063	535	49	1152
Kernan, Francis, Jr., et al. (See Copelin, Thomas E., assignor.)						
Kernan, Joseph F., et al. (See Copelin, Thomas E., assignor.)						
Kerner, Georg, Frankfurt-on-the-Main, Prussia, and J. Marx, Ulm-on-the-Danube, Würtemberg, Germany. Electrolyzing salts of the alkalies	415,644	Nov. 19	2275	303	49	1194
Kerr, David E., Philadelphia, Pa. Woven fabric	416,225	Dec. 3	106	30	49	1309
Kerr, George W., New Haven, Conn. Vehicle-seat	415,971	Nov. 26	2769	734	49	1303
Kerr, James P., and W. M. Hodge, St. Louis, Mo. Device for supporting articles in show- windows	415,912	Nov. 26	3967	690	49	1321
Kerr, Thomas E., Kansas City, Kans. Refractory composition	415,170	Nov. 12	1530		49	1040
Kerrigan, Frank, assignor of one-half to J. J. Altpeter, Chicago, Ill. Button or ornament	412,312	Oct. 8	1073	880	49	217
Kerrison, Charles, Jr., et al. (See Iusti, Johann A. W., assignor.)						
Kersey, D. G., et al. (See Taylor and Lightfoot, assignors.)						
Kersey, G. F., et al. (See Taylor and Lightfoot, assignors.)						
Kershaw, James, London, England. Spring button-fastener for gloves, &c.	417,191	Dec. 10	1543	419	49	1663
Kersten, Emil, et al. (See Iusti, Johann A. W., assignor.)						
Kertz, Frank. (See Bookser, Rudolph C., assignor.)						
Kessmiser, Julius G. (See Campbell, Henry F., assignor.)						
Kester, Jesse F., Terre Haute, Ind., assignor of one-fourth to O. E. Duffy, Washington, D. C. Electrical metal-detector	412,924	Oct. 15	1683	439	49	340
Ketchum, Henry W., Patchogue, N. Y. Spring-hinge	417,407	Dec. 10	1328	363	49	1641
Ketchledge, James T., Tunkhannock, Pa. Wagon-tongue	413,356	Oct. 22	2180	567	49	445
Ketchum, Loren L., Madison, Wis. Folding table	413,324	Oct. 22	2294	596	49	467
Keystone Car Coupler Company. (See Lorraine, Madison J., assignor.)						
Keystone Car Coupler Company. (See Lorraine and Wherry, assignors.)						
Keystone Watch Case Company. (See Chappatte, Edward L., assignor.)						
Keystone Watch Case Company. (See Ewing, James D., assignor.)						
Keystone Watch Case Company. (See Gaul, Harry R., assignor.)						
Keystone Watch Case Company. (See Mink, Fritz, assignor.)						
Keystone Watch Case Company. (See Turner, Fred L., assignor.)						
Kidder, Charles E., Aurora, Ill. Tree attachment for support of ladders	416,226	Dec. 3	108	30, 31	49	1390
Kidder, Samuel, trustee. (See Gardner, John T., assignor.)						
Kiefer, Jacob, Bridgeport, Conn. Type-writer cabinet	418,592	Dec. 31	3591	937	49	2107
Kiel, Butler & Turnbull. (See Kiel, William, assignor.)						
Kiel, William, Butler, N. J., assignor to Kiel, Butler & Turnbull, New York, N. Y. Vul- canized plastic compound	412,264	Oct. 8	709		49	147
Kiel, William, Butler, N. J., assignor to Kiel, Butler & Turnbull, New York, N. Y. Manu- facturing vulcanized plastic compounds	412,265	Oct. 8	710		49	147
Kiel, William, Butler, N. J., assignor to Kiel, Butler & Turnbull, New York, N. Y. Manu- facturing vulcanized plastic compounds	412,266	Oct. 8	711		49	147
Kiel, William, Butler, N. J., assignor to Kiel, Butler & Turnbull, New York, N. Y. Manu- facturing vulcanized plastic compounds	412,267	Oct. 8	712		49	147
Kiel, William, Butler, N. J., assignor to Kiel, Butler & Turnbull, New York, N. Y. Manu- facturing vulcanized plastic compounds	412,268	Oct. 8	713		49	147
Kiel, William, Butler, N. J., assignor to Kiel, Butler & Turnbull, New York, N. Y. Manu- facturing vulcanized plastic compounds	412,269	Oct. 8	713		49	148
Kilber, Frank A. (See Hill and Kilber.)						
Kilzour, George, Westminster, England. Apparatus for sorting minerals	413,188	Oct. 22	2081	542	49	425
Killingier, Edgar P., and J. O. Wolfe, Adwold, Va. Rail-joint	413,067	Oct. 15	1894	493	49	341
Kimball, Arden D., Miles, Iowa. Tug-holder	414,548	Nov. 5	560	144	49	822
Kimball Automatic Car Heating Company. (See Kimball, Richard D., assignor.)						
Kimball, Charles H., Chelsea, Mass. Freight-car	412,270	Oct. 8	714	186	49	148
Kimball, Joseph E., Abington, assignor, by mesne assignments, to E. L. Wires, Milford, J. Mass. Nailing-machine	415,672	Nov. 19	2322	605	49	1902
Kimball, Richard D., Boston, Mass., assignor to Kimball Automatic Car Heating Company, Portland, Me. System of heating cars by steam and hot water	416,844	Dec. 10	1035	578	49	1521
Kinard, Steven B., J. B. McKinley, and J. R. Thaxton, Towaliga, Ga. Rail-joint	413,257	Oct. 29	3059	797	49	625
Kineade, John M., Westville, Ohio. Railway-switch	417,427	Dec. 17	1894	507	49	1759
King, Benjamin F., Henrietta, Tenn. Plow attachment	416,111	Nov. 26	3002	508	49	1348
King, Charles, assignor to L. Bloke, New York, N. Y. Condenser	412,271	Oct. 8	716	187	49	148
King, Charles A., Meriden, Conn. Recoil mechanism for breech-loading guns	412,340	Oct. 8	822	213	49	167
King, Edwin G., Scott, J. Hamilton, and N. Y. Veterinary remedy	417,365	Dec. 17	2131		49	1603
King, Frank S., Ludlow, Mass. Safety device for elevators	416,369	Dec. 3	326	85	49	1433
King, George E., et al. (See Castleman, Morris N., assignor.)						
King, Henry H., Springfield, and B. P. K. Jennings, Dayton, assignors of one-half to R. A. J. Worthington, Springfield, Ohio. Machine for veneering	415,276	Nov. 19	1678	435	49	1077
King, Ezekiah O., Greenville, S. C. Cotton-kale covering	418,620	Dec. 31	3740	977	49	2136
King, James M., assignor of one-half to J. W. Mendenhall and J. P. Boomsacker, Chester, Neb. Device for deboning cattle	411,295	Oct. 1	177	45	49	36
King, John T., Madison, Wis. Adjustable gearing for printing-machines	414,799	Nov. 12	1221	318	49	967
King, Phineas F., assignor to M. Mosler, Cincinnati, Ohio. Safe	418,619	Dec. 31	3735	976	49	2135
King, Samuel A., Philadelphia, Pa. Balloon	417,389	Dec. 17	1848	495	49	1749
King, Warden. (See Spence, Archibald, assignor.)						
King, William H., Newark, N. J. Indicator	417,336	Dec. 17	1743	469	49	1731
King, William H., Newark, N. J. Pin-cushion	417,922	Dec. 24	2651	700	49	1913
King, William S. (See Collyer, Charles W., assignor.)						
Kingdon, John A., London, England. Dynamo-electric machine	412,854	Oct. 15	1583	413	49	322
Kingsford, Thomas, New Tunkin, John J., assignor.)						
Kingsland & Douglas Manufacturing Company. (See Reeder, William S., assignor.)						
Kingsland, George, Stanwood, Mich. Sash-fastener	412,180	Oct. 1	592	154	49	119
Kinkaid, Robert S., Lexington, Ky. Bridle	412,272	Oct. 8	717	187	49	148
Kinkaid, Curtis L., et al. (See Head, William F., assignor.)						
Kinney, Israel, Brantford, Ontario, Canada. Wire fabric and making the same	415,673	Nov. 19	2324	607	49	1203
Kinney, Jesse, Detroit, Mich. Commode	412,273	Oct. 8	719	187	49	149
Kinsley, Myron H., Niagara Falls, assignor to Oneida Community, (limited,) Community, N. Y. Trace-chain	412,960	Oct. 15	1732	453	49	350
Kinsman, Frank R., Plainfield, N. J. Electro-operated ice-cutting machine	412,925	Oct. 15	1684	440	49	341
Kinzer, Charles J. (See Paget, Leonard, assignor.)						
Kinzer, Jacob, assignor, by mesne assignments, to Kinzer & Jones Manufacturing Company, Pittsburg, Pa. Mold	413,674	Oct. 29	2807	730	49	576

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Kinzer & Jones Manufacturing Company. (See Kinzer, Jacob, assignor.)						
Kirby, Harriet B., Morristown, N. J. Mosquito-canopy	413,913	Nov. 26	2068	699	49	1381
Kirby, John, Jr. (See Patterson, John C., assignor.)						
Kirby, John, Jr., Dayton, Ohio. Car-lamp	416,170	Dec. 3	35	11	49	1376
Kirby, John, Jr., assignor to Dayton Manufacturing Company, Dayton, Ohio. Brake-handle	413,504	Oct. 29	2983	778	49	610
Kirk & Co., James S. (See Donnelley and Hageman, assignors.)						
Kirk, John A., Washington, D. C., assignor of one-half to J. J. Boucher, Chicago, Ill. Attachment for bicycles	413,189	Oct. 22	2083	543	49	425
Kirker, Jahez G., Louisville, Ky. Cam	413,523	Oct. 22	2579	868	49	321
Kirkpatrick, Alexander L., Orrick, Mo. Weather-strip	416,411	Dec. 3	387	103	49	1446
Kirsch, Henry E., Rochester, N. Y. Spectacle frame	412,395	Oct. 8	900	235	49	182
Kissell, Abraham S., deceased, and M. A. Kissell, for herself and as executrix, Chicago, Ill. Electro-automatic valve	415,871	Nov. 26	2604	681	49	1267
Kissell, Mary A., executrix. (See Kissell, Abraham S.)						
Kisson, Arthur, Philadelphia, Pa. Carbureting lamp	415,914	Nov. 26	2669	700	49	1381
Kittredge, Anson O. (See Leavitt, Kittredge, and White.)						
Kittredge, Anson O., Slate Hill, N. Y., and T. S. Crane, East Orange, N. J., assignors to Vulcan Company, Pennsylvania. Curved-molding machine	414,656	Oct. 29	3373	877	49	694
Kitts, Alexander. (See Lum and Liscom, assignors.)						
Kitzinger, Jacob, Buffalo, N. Y. Ladle-carrier	417,491	Dec. 17	2604	535	49	1780
Klaber, Augustus D. (See Davis, George H., assignor.)						
Klaber, Emil, Boston, Mass. Apparatus for moistening air	414,057	Oct. 29	3377	878	49	695
Klaber, Hermann, Chicago, Ill. Gas and air mixer	414,549	Nov. 5	561	144	49	853
Klappertick, Albert, assignor of one-half to A. H. Meyer, Hoboken, N. J. Fire-proof compound for ceilings, &c.	418,192	Dec. 31	3086	827	49	2004
Klar, John, Westfield, Mass. Head for polishing stone	416,462	Dec. 3	450	125	49	1462
Kline, Charles L., New York, N. Y. Car-heating system	417,360	Dec. 17	1848	496	49	1749
Kline, Charles L., New York, N. Y. Car-heating system	417,391	Dec. 17	1849	496	49	1750
Kling, Peter M., St. Louis, Mo. Street-car-window sash	417,647	Dec. 17	2241	505	49	1925
Kling, William L., East St. Cloud, Minn. Hand-planer	414,320	Nov. 5	508	52	49	780
Klingler, Herman, Buffalo, N. Y. Truss	414,550	Nov. 5	562	144	49	853
Klink, Constantine, and F. Pinkowski, Kiełaskittite, and A. Gross, Beuthen, Prussia, Germany. Machine for the preparation of leather	417,251	Dec. 17	1629	441	49	1710
Ellipp, George, Rochester, N. Y. Fire-escape	412,630	Oct. 8	1255	287	49	252
Kluenter, John, Allentown, Pa. Wood-working machine	414,551	Nov. 5	564	145	49	853
Klump, George W. (See Berry, John L., assignor.)						
Knapp, Charles E., Brooklyn, N. Y. Corner and edge protector	416,336	Dec. 3	272	71	49	1423
Knapp, David H., assignor of one-half to R. Campbell, Norwich, N. Y. Apparatus for the manufacture of gas	413,190	Oct. 22	2055	513	49	426
Knapp, Edmund B., and F. Pinkowski, Kiełaskittite, and A. Gross, Beuthen, Prussia, Germany. Machine for the preparation of leather	417,251	Dec. 17	1629	441	49	1710
Brinton, San Jacinto, Cal. Buckle	417,648	Dec. 17	2242	495	49	1925
Knapp, George W., Baltimore, Md. Cake-cutter	412,100	Oct. 1	457	119	49	92
Knapp, Hiram W., Bettelle, S. D. Engineer's seat	417,192	Dec. 10	1544	420	49	1683
Knapp, William H., Galesburg, Mich. Elevator	414,712	Nov. 12	821	214	49	910
Kneas, William H. (See Smith, George A., assignor.)						
Knell, James W., Highlands, N. J. Apparatus for producing illusory dramatic effects	418,372	Dec. 31	3360	876	49	2058
Kneuper, Emilie L., et al. (See Kneuper, Frederick J., assignor.)						
Kneuper, Frederick J., assignor to E. L. Kneuper and C. G. Willing, New York, N. Y. Electro-therapeutic apparatus	417,923	Dec. 24	2652	700	49	1913
Kniekerhacker, John. (See Hootman, William H., assignor.)						
Kniekerhacker Company. (See Morris, Orrville M., assignor.)						
Knight, Henry W., Columbus, Ohio. Rain-water cut-off	418,290	Dec. 31	3325	843	49	2032
Knight, Herbert. (See Hough and Knight.)						
Knight, Horace, Paris, Me. Harrow and land leveler	415,645	Nov. 19	2278	294	49	1194
Knight, Jacob, Cleveland, Ohio. Power beveling shears	414,325	Nov. 5	572	16	49	752
Knight, John, San Francisco, Cal. Adjustable case-center for lathes	412,936	Oct. 15	1686	440	49	341
Knipper, Joseph G. and P. H., Rochester, N. Y. Liniment	417,045	Dec. 10	1349	299	49	1641
Knipper, Peter H. (See Knipper, Joseph G. and P. H.)						
Knoche, Gottfried, New York, N. Y. Grain or malt bin	413,370	Oct. 22	2369	613	49	479
Knoepf, Philipp, Stapleton, N. Y. Sign	416,925	Dec. 10	1151	315	49	1605
Knowles, John H. (See Proctor and Knowles.)						
Knowles Loom Works. (See Hutchins, George F., assignor.)						
Knowles, Norman, and W. Phillips, Bolton, county of Lancaster, England. Circular brush	417,566	Dec. 17	2131	567	49	1803
Knowlton, Mark D., and E. F. Peacock, Chicago, Ill. Machine for cutting blanks from sheets	416,267	Dec. 3	169	46	49	1401
Knox, John H., Allegheny, Pa. Grate	416,789	Dec. 10	951	237	49	1564
Kobich, Georg, New York, N. Y. Picture-exhibitor	416,295	Dec. 3	215	56	49	1410
Koch, Adolph P., assignor of one-fourth to L. W. Leith, Ealingham, Ill. Neck-yoke center	416,680	Dec. 3	793	217	49	1537
Koch, Christian H., assignor to Anti-Friction Composition Journal Bearing Company, Chicago, Ill. Lining for journal-boxes	416,337	Dec. 3	372	129	49	1423
Kochka, Thomas, Jersey City, N. J. Ring-game	416,463	Dec. 3	460	125	49	1462
Koehler, Clarkson A. (See Koehler, James A. and C. A.)						
Koehler, James A. and C. A., East Saginaw, Mich. Flower-stand	411,896	Oct. 1	178	46	49	36
Koelle, John, Beverly, S. D. Draft-square	416,318	Dec. 3	273	72	49	1423
Koenig, Andrew B., and J. B. Van Clote, St. Louis, Mo. Bell attachment for humpies or guttars	416,064	Nov. 26	2209	758	49	1331
Kobhaus, Christian. (See McElhose, Thomas S., assignor.)						
Kohn, Jacob. (See Levy, Charles, assignor.)						
Koll, Henry, South Omaha, Neb. Beer-faucet	413,257	Oct. 22	2181	569	49	445
Kolzen, John P., Chicago, Ill. Window-ventilator	418,193	Dec. 31	3086	810	49	2004
Koneman, William A., assignor to A. F. Hatch, Chicago, Ill. Reducing metals	414,713	Nov. 12	832	214	49	910
Koosle, Henry A., and C. H. Sloneker, near De Graff, Ohio. Holdback for vehicles	413,143	Oct. 15	3009	323	49	405
Kookogey Electric Company. (See Kookogey, William P., assignor.)						
Kookogey, William P., Brooklyn, assignor to Kookogey Electric Company, New York, N. Y. Galvanic-battery compound	413,345	Oct. 22	2331	599	49	472
Kookogey, William P., Brooklyn, N. Y., assignor to Kookogey Electric Company. Electric railway-signal	414,645	Nov. 5	714	185	49	881
Kookogey, William P., assignor to Kookogey Electric Company, Brooklyn, N. Y. Electric railway-signal	414,773	Nov. 12	902	233	49	925

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.
			Spec.	De't.	
Koontz, Henry C., Waynesborough, Pa. Fan for ventilation	415,839	Nov. 26	2563	668	49 1258
Koopman, Elias B., New York, N. Y. Pocket-lamp	414,038	Oct. 29	3378	878	49 695
Kora, Henry F., Virginia, Ill. Wrench	415,337	Dec. 31	3506	864	49 3048
Korting, Ernst, Hanover, Prussia, Germany, assignor to Korting Gas Engine Company, (limited), New York, N. Y. Automatic ignition in gas-engines	417,924	Dec. 24	2654	700	49 1914
Korting, Ernst, Hanover, Prussia, Germany, assignor to Korting Gas Engine Company, (limited), New York, N. Y. Automatic valve and ignitor for gas engines	418,029	Dec. 24	2622	745	49 1946
Korting Gas Engine Company. (See Korting, Ernst, assignor.)					
Korting Gas Engine Company. (See Willmer, Arnold, assignor.)					
Kortos, Louis L., et al. (See Baker, Francis M., assignor.)					
Koryl, Charles H., Easton, Pa. Reflector or mirror	418,136	Dec. 24	2998		49 1977
Kraehmer, Oscar C., Galena, Ill. Watch-crystal gage	412,631	Oct. 8	1257	328	49 253
Krajewski, Thomas F., et al. (See Loomis, Franklin D., assignor.)					
Kramer, Francis D., and G. Lorys, Philadelphia, Pa. Revolving chair	412,513	Oct. 8	1074	280	49 217
Kramer, John A., Louisiana, Mo. Pocket-and-wire-fence machine	418,194	Dec. 31	3087	810	49 3004
Kraaky, Henry G., E. E. Lommatzsch, and J. Kuefler, assignors to Golden Gate Automatic Street and Station Indicator Company, San Francisco, Cal. Automatic station-indicator for railway-cars	414,885	Nov. 12	1081	377	49 959
Krater, Peter J., St. Mary's, Mo. Combination halter, yoke, and bridle	417,870	Dec. 24	2677	679	49 1898
Kraus, Leopold, Birmingham, Conn. Corset	413,191	Oct. 32	3065	543	49 438
Krause, Charles H., Lake Linden, Mich. Atmospheric stamp	414,910	Nov. 12	1117	289	49 966
Krebs, Henrik J., assignor to Delaware Chemical Company, Wilmington, Del. Protective covering for metallic tanks	412,190	Oct. 1	583	154	49 119
Kregor, Fred. (See Peterson, Andrew J., assignor.)					
Kreger, John, Buffalo, N. Y. Hame-fastener	413,805	Oct. 29	2967	778	49 611
Krehbiel, John, Kalamazoo, Mich. Vestibule for cars	417,567	Dec. 17	2132	568	49 1803
Kreicker, William. (See Kade, Charles, assignor.)					
Kreiss, Eugen, et al. (See Rieck, Otto, assignor.)					
Kritter, Frank X., Milwaukee, Wis. Process of from a copy a plate or type for printing	412,760	Oct. 15	1453	380	49 298
Kroeber, Florence, New York, N. Y. Clock-case	413,225	Oct. 22	2153	560	49 430
Kroeger, Caspar H., Milwaukee, Wis. Rack for exhibiting laces	413,003	Oct. 22	2701	702	49 546
Krom, John J., St. Augustine, Fla. Door-check	416,681	Dec. 3	794	217	49 1527
Kromer, Otto. (See Keller, Jeremiah, assignor.)					
Kron, Edward M., Old Chatham, N. Y. Mowing or reaping machine	412,274	Oct. 8	780	188	49 149
Kronscheldt, Peter, Boston, Mass. Piano action	417,193	Dec. 10	1045	420	49 1623
Kruse, Henry C., assignor of one-half to J. Cornwell, St. Louis, Mo. Siphonic dispenser for vitriol, &c.	412,191	Oct. 1	594	154	49 119
Kruse, John H. (See Smith and Kruse.)					
Kruse, Wilhelm, Cincinnati, Ohio. Anchor-block for buildings	415,840	Nov. 26	2563	669	49 1258
Kuhler, John, assignor of one-half to C. N. Rix, Hot Springs, Ark. Permutation-padlock	416,928	Dec. 3	172	46	49 1402
Kuch, Otto. (See Schleuter and Kuch.)					
Kuefler, John. (See Kraaky, Lommatzsch, and Kuefler.)					
Kuhn, Frederick X., Buffalo, N. Y. Liquid-cooler	413,856	Oct. 29	2988	778	49 611
Kuhn, George J., St. Louis, Mo. Portable wash-card	416,030	Dec. 24	2225	745	49 1946
Kuhn, William, Clermont Ferrand, France. Apparatus for the pasteurization of beer and other liquids	412,632	Oct. 8	1257	328	49 253
Kull, Philip H., Genoa Junction, Wis. Clevis	415,031	Dec. 24	2630	745	49 1946
Kundtz, Theodor. (See Franke, Wincent, assignor.)					
Kuppermann, Fritz. (See Altman and Kuppermann.)					
Kurtz, John A., assignor to J. R. McClelland, Allegheny, A. Pantzer, and H. H. Schulte, Glenfield, Pa. Seal-lock	417,568	Dec. 17	2133	568	49 1804
Kurtz, Stewart S., Canton, Ohio. Portable saw	418,195	Dec. 31	3089	811	49 3005
Kusnezov, Vasily, St. Petersburg, Russia. Gas washer	415,640	Nov. 19	2279	594	49 1134
Klissner, Lorenz, Terre Haute, Ind. Pad attachment	418,572	Dec. 31	3068	958	49 3132
Kutsche, Oswald, Chicago, Ill. Steam-condenser	412,029	Oct. 1	365	94	49 73
Kutsche, Oswald, Chicago, Ill. Dust-collector	414,980	Nov. 12	1222	319	49 987
Kutscher, Louis, Bridgeport, Conn. Apparatus for use in secret voting	412,761	Oct. 15	1454	380	49 299
Knykendall, Joseph J., Cairo, Ill. Coal-bin or coal-cabinet	413,068	Oct. 15	1855	403	49 381
La Dow, Charles, Albany, N. Y. Harrow	415,113	Nov. 12	1400	366	49 1024
La Dow, Orville D., Mechanicsville, N. Y., assignor of one-half to F. T. Bickford, Washington, D. C. Telegraph-transmitter	416,732	Dec. 10	889	235	49 1549
La Follette, Harvey M., et al. (See Malins, John F., assignor.)					
La Bousne, William, and J. W. Barlow, Greenville, Ind. Topical remedy	417,254	Dec. 17	1633	623	49 1710
Lachance, Joseph, East Portland, Ore. Washing-machine	413,400	Oct. 22	2407	623	49 487
Lachlan, John M., New York, N. Y. Steam-boller	414,911	Nov. 12	1119	290	49 967
Laconia Car Company. (See Sargent, Arthur G., assignor.)					
Ladd, Joseph J., Calumet, Penn. Anti-friction roller	417,222	Dec. 17	1631	642	49 1710
Ladd, Loren G., Pawtucket, R. I. Hoisting-bucket	413,224	Oct. 22	2154	560	49 431
Lage, Nicholas, Rock Island, Ill. Hame-fastener	416,926	Dec. 10	1152	315	49 1605
Lahy, John J. (See Farmer, John R., assignor.)					
Lahue, Moses M. (See Sawyer and Lahue.)					
Lainosse, Edouard, San Francisco, Cal. Safety device for elevators	416,119	Nov. 26	2603	722	49 1348
Laisale, Hugo, Vienna, Austria-Hungary. Machine for molding pulleys	418,523	Dec. 31	3593	938	49 3107
Lake, Bertus A. (See Lake, John C. and B. A.)					
Lake, George W. (See Frenshur and Lake.)					
Lake, Harrison. (See Horne and Lake.)					
Lake, John C. and B. A., Big Prairie, Ohio. Portable circular-saw mill	412,101	Oct. 1	428	119	49 92
Lake, John C. and S. Ocean City, N. J. Steering gear for vessels	418,002	Dec. 24	2826	745	49 1946
Lake, Simon. (See Lake, John C. and S.)					
Lakin, Harry W. (See Lakin, John H. and H. W.)					
Lakin, John H., Boston, and H. W. Lakin, Quincy, Mass. Propelling device for cash-cars	418,196	Dec. 31	3090	811	49 3005
Lalancé & Grosjean Manufacturing Company. (See Milligan, John C., assignor.)					
Lally, James, Tekamah, Nebr. Halter	416,227	Dec. 3	109	31	49 1300
Lalor, James D., Philadelphia, Pa. Holder for embroidery-needles	417,353	Dec. 17	1632	442	49 1710
Lamb, Charles M. (See Page and Lamb.)					
Lamb, George B., Waterbury, assignor to Bridgeport Steel Cutting Company, Bridgeport, Conn. Machine for making shoe-shanks	417,925	Dec. 24	2656	700	49 1914

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Lambert, Albert, Wadsworth, Ohio. Automatic steam-injector.	416,709	Dec. 3	892	223	49	1533
Lambert, Richard C., North Middleborough, Mass. Tacking-tool.	412,762	Oct. 15	1456	381	49	299
Lamblin, Charles H. (See Taylor and Lamblin.)						
Lamole, Francis, New York, N. Y. Clasp.	412,514	Oct. 8	1073	281	49	218
Lamrock, William H., Cayce, Cal. Swallow.	412,102	Oct. 1	460	120	49	93
Lamson Cash Railway Company. (See Farmer, Theodore P., assignor.)						
Lamson Cash Railway Company. (See Powers, Luray C., assignor.)						
Lamson Cash Railway Company. (See Rand, William T., assignor.)						
Lamson Consolidated Store Service Company. (See Cowley, James T., assignor.)						
Lamson Consolidated Store Service Company. (See Cowley, James T., assignor.) (Re-issue.)						
Lamson Consolidated Store Service Company. (See Rider, Henry, assignor.)						
Lamson Consolidated Store Service Company. (See Tirrell and Taylor, assignors.)						
Lancaster, Charles P., Fairmount, Ind. Gate.	413,144	Oct. 15	3010	524	49	405
Luene, Clarence C., Pittsburgh, Pa. Envelope opener and sealer and stamp-moistener.	411,862	Oct. 1	138	33	49	97
Lancaster, Frederick W. (See Lancaster, Henry V. and F. W.)						
Lancaster, Henry V. and F. W., Balam, county of Surrey, England. Advertising apparatus.	415,872	Nov. 26	2026	662	49	1367
Landas, Clarence L., Titusville, Pa. Violin-bow.	413,069	Oct. 15	1886	483	49	381
Laudauer, Georg F., Frankfurt-on-the-Main, Germany. Dyeing leather.	418,414	Dec. 31	3421	804	49	3072
Landers, John F. (See Parker and Landers.) (Reissue.)						
Landis, Ezra F., assignor of one-half to M. Hervey, Lancaster, Pa. Candy-tray.	417,949	Dec. 10	1330	363	49	1641
Landis, Israel L. (See Lake, Anthony, assignor.)						
Luue, Frederic A., assignor of one-half to F. E. Morgan, New Haven, Conn. Electrical appliance for winding clocks.	415,817	Nov. 26	3528	660	49	1351
Luue, Frederic A., assignor of one-half to F. E. Morgan, New Haven, Conn. Electric-circuit controller.	417,926	Dec. 24	3062	702	49	1915
Luue, Frederic A., assignor of one-half to F. E. Morgan, New Haven, Conn. Automatic electric clock-winding device.	417,927	Dec. 24	3065	703	49	1915
Luue, Frederic A., assignor of one-half to F. E. Morgan, New Haven, Conn. Electric-winding clock.	417,928	Dec. 24	3067	703	49	1916
Laney, Hervy, Cumberland, Md. Photographic camera.	417,871	Dec. 24	3579	670	49	1898
Lang, Robert. (See Reinemer and Lang.)						
Lang, William. (See Weyand and Lang.)						
Langen, Eugen, Cologne, Germany. Furnace for roasting or otherwise treating granular or pulverulent materials.	414,532	Nov. 5	565	145	49	833
Langenau, William C., Brooklyn, Ohio. Collar-fastener.	413,675	Oct. 29	2408	731	49	577
Langenau, William C., Brooklyn, Ohio. Collar-fastener.	416,092	Nov. 26	2810	737	49	1312
Langenheim, Frederick D., Philadelphia, Pa. Feed-water heater.	412,927	Oct. 15	1657	440	49	341
Langer, Carl. (See Mond and Langer.)						
Langfield, Morris F., Philadelphia, Pa. Pocket-book.	414,226	Nov. 5	73	17	49	752
Langitt, Francis P., Pittsburgh, Pa. Movable needle-shell.	415,719	Nov. 26	3391	624	49	1245
Languet, Alphonse, Paris, France. Dredging-boat.	412,341	Oct. 8	823	214	49	167
Languet, Alphonse, Paris, France. Dredging-boat.						
Laning, George D., Bridgeton, N. J. Can-feeding apparatus.	418,621	Dec. 31	3741	877	49	4136
Lansberg Brake Company. (See Lansberg, Frank, assignor.)						
Lansberg, Frank, St. Louis, Mo., assignor to Lansberg Brake Company, East St. Louis, Ill. Air-brake.	415,513	Nov. 19	3064	536	49	1152
Lansberg, Frank, St. Louis, Mo., assignor to Lansberg Brake Company, East St. Louis, Ill. Air-brake.	415,514	Nov. 19	3065	536	49	1152
Lansberg, Frank, St. Louis, Mo., assignor to Lansberg Brake Company, East St. Louis, Ill. Air-brake.	415,515	Nov. 19	3066	536	49	1152
Lansberg, Frank, St. Louis, Mo., assignor to Lansberg Brake Company, East St. Louis, Ill. Air-brake.	415,516	Nov. 19	3068	536	49	1153
Lansberg, Frank, St. Louis, Mo., assignor to Lansberg Brake Company, East St. Louis, Ill. Air-brake.	415,517	Nov. 19	3069	537	49	1153
Lansberg, Frank, St. Louis, Mo., assignor to Lansberg Brake Company, East St. Louis, Ill. Air-brake.	415,518	Nov. 19	3070	537	49	1154
Lansberg, Frank, St. Louis, Mo., assignor to Lansberg Brake Company, East St. Louis, Ill. Air-brake.	415,519	Nov. 19	3071	537	49	1154
Lansberg, Frank, St. Louis, Mo., assignor to Lansberg Brake Company, East St. Louis, Ill. Air-brake.	415,520	Nov. 19	3072	538	49	1154
Lansberg, Frank, St. Louis, Mo., assignor to Lansberg Brake Company, East St. Louis, Ill. Air-brake.	415,521	Nov. 19	3074	538	49	1154
Lansberg, Frank, St. Louis, Mo., assignor to Lansberg Brake Company, East St. Louis, Ill. Air-brake.	415,522	Nov. 19	3074	538	49	1155
Lanterman, Alvin P., Chicago, Ill. Mortising-chisel.	412,275	Oct. 8	723	189	49	149
Lau, Dick N., Chicago, Ill. Letter or number for signs.	411,613	Oct. 1	55	16	49	14
Lapangh, Daniel P., Utica, N. Y. Die for lasts.	414,533	Nov. 5	567	146	49	854
Lapham-Dodge Company. (See Pfanschmidt, Edward C., assignor.)						
Lapham, Elbridge G. (See McBride, Richard P., assignor.)						
Larkin, John, Bradford, Pa. Inkstand.	415,447	Nov. 19	3280	504	49	1194
Larned, Charles P. (See Lockwood, Joseph E., assignor.)	412,366	Oct. 8	902	235	49	183
Larrabee Manufacturing Company. (See Boughton, William, assignor.)						
Larsen, James, et al. (See Huffman, Orlando, assignor.)						
Larsen, James, Wild Rose, Wis. Wagon-spring.	418,033	Dec. 24	2827	746	49	1947
Larsen, Peter C., et al. (See Huffman, Orlando, assignor.)						
Lary, Morris, New York, N. Y. Sieve for flour and similar substances.	416,228	Dec. 3	110	31	49	1390
Lasar, Godfrey H., St. Louis, Mo. Type-writing machine.	415,523	Nov. 19	3075	539	49	1155
Lasar, Godfrey H., St. Louis, Mo. Type-writing machine.	415,524	Nov. 19	3078	540	49	1155
Lasar, Godfrey H., St. Louis, Mo. Type-writing machine.	415,525	Nov. 19	3080	540	49	1156
Lasar, Godfrey H., St. Louis, Mo. Type-writing machine.	415,526	Nov. 19	3081	540	49	1156
Lasar, Godfrey H., St. Louis, Mo. Type-writing machine.	415,527	Nov. 19	3082	541	49	1156
Lasar, Godfrey H., St. Louis, Mo. Type-writing machine.	415,528	Nov. 19	3084	541	49	1157
Lasar, Godfrey H., St. Louis, Mo. Type-writing machine.	415,529	Nov. 19	3085	541	49	1157
Lasar, Godfrey H., St. Louis, Mo. Type-writing machine.	415,530	Nov. 19	3086	542	49	1157
Lasar, Godfrey H., St. Louis, Mo. Type-writing machine.	415,531	Nov. 19	3090	543	49	1158

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Drawg.	Vol.	Page.
Lasar, Godfrey H., St. Louis, Mo. Type-writing machine	415,332	Nov. 19	2091	543	49	1158
Lasar, Godfrey H., St. Louis, Mo. Type-writing machine	415,333	Nov. 19	2092	543	49	1159
Lasar, Godfrey H., St. Louis, Mo. Type-writing machine	415,334	Nov. 19	2094	544	49	1159
Lasar, Godfrey H., St. Louis, Mo. Type-writing machine	415,335	Nov. 19	2096	544	49	1159
Lasar, Godfrey H., St. Louis, Mo. Type-writing machine	415,336	Nov. 19	2097	544	49	1160
Lasar, Godfrey H., St. Louis, Mo. Type-writing machine	415,337	Nov. 19	2102	546	49	1161
Lasar, Godfrey H., St. Louis, Mo. Type-writing machine	415,338	Nov. 19	2104	547	49	1161
Lasar, Godfrey H., St. Louis, Mo. Type-writing machine	415,339	Nov. 19	2105	547	49	1161
Lash, Isaac R., Heidelberg, Pa. Door-lock	415,210	Nov. 19	1583	407	49	1058
Lash, John F., assignor to Z. A. Lash, Toronto, Ontario, Canada. Letter-file	416,006	Nov. 26	2269	750	49	1323
Lash, Zehnlun A. (See Lash, John F., assignor.)						
Latham, Eugene E., deceased; M. S. Latham, Windsor Lock, Conn., administratrix. Clutch-operating mechanism	418,197	Dec. 31	3092	811	49	2005
Latham, Martha S., administratrix (See Latham, Eugene E.)						
Lathie, James E. (See Van Horn and Lathie.)						
Lathrop, Elias L. (See Taft and Lathrop.)						
Latta, Adrian C., et al. (See Gorton, Henry B., assignor.)						
Latta, Emmitt G., et al. (See Gorton, Henry B., assignor.)						
Latté, Emile, et al. (See Biot, Pierre E., assignor.)						
Lattimore, Walter A., Mahanoy City, Pa. Lantern-holder	415,720	Nov. 26	2392	634	49	1225
Latalup, Frederick, assignor to A. Maltbie, Syracuse, N. Y. Head for jack-spoils	413,192	Oct. 22	2057	543	49	426
Latalup, Frederick, assignor of one-half to G. B. Leonard, Syracuse, N. Y. Cementing raw-hile	416,370	Dec. 3	3229	86	49	1434
Latz, Charles J., assignor of three-fourths to J. Wehle, Rochester, N. Y. Mechanism for operating elevator-gates	416,037	Nov. 26	2270	751	49	1323
Laufenberg, Michael N., assignor to Stockton Combined Harvester and Agricultural Works, Stockton, Cal. Grain separator and cleaner	416,464	Dec. 3	461	125	49	1402
Lauferty & Son, Joseph. (See Elson, Jacob, assignor.)						
Laufer, S. D., et al. (See Billheimer, Cyrus E., assignor.)						
Laughton, William, No. 41 Elyston Road, Fulham, county of Middlesex, assignor to F. Moreton, London, England. Galvanic cell	414,668	Nov. 5	754	194	49	889
Laureau, Louis C., Philadelphia, Pa. Pit furnace	411,814	Oct. 1	57	16	49	14
Laws, Walter, New Bedford, Mass. Shoe-furnishing tool	417,872	Dec. 24	2581	680	49	1999
Lawrence, Alfred C., Toronto, Ontario, Canada. Permutation-lock	417,873	Dec. 24	2582	680	49	1999
Lawrence, Louis P., Passaic, N. J. Power-brake	417,194	Dec. 10	1546	330	49	1683
Lawrence, Louis P., Passaic, N. J., assignor to Lawrence Railway Brake Company, New York, N. Y. Power-brake	418,573	Dec. 31	3669	959	49	2122
Lawrence, Louis P., Passaic, N. J., assignor to Lawrence Railway Brake Company, New York, N. Y. Power-brake	418,574	Dec. 31	3671	959	49	2122
Lawrence, Louis P., Passaic, N. J., assignor to Lawrence Railway Brake Company, New York, N. Y. Power-brake	418,575	Dec. 31	3672	959	49	2122
Lawrence, William B., assignor of one-half to A. A. McCreary, New York, N. Y. Shade or reflector for electric lights	416,682	Dec. 3	795	217	49	1528
Lawrence, William H., assignor of one-half to J. H. McCreary, New York, N. Y. Shade or reflector for electric lights	418,034	Dec. 24	2828	746	49	1947
Lawrence, Willis H., Milton, Pa. Fence-post	418,594	Dec. 31	3595	938	49	2108
Lawrie, John, Brookston, Ind. Cultivator	415,540	Nov. 19	2100	548	49	1161
Lawson, Eugene, Wilkes-Barre, Pa. Door-check	416,465	Dec. 3	463	126	49	1462
Lawson, P. Y., and W. L. Field, Menasha, Wis. Pulley	412,978	Oct. 8	735	189	49	150
Lawton, J. Warren. (See Foulks, John W., assignor.)						
Lawton, James B., Cincinnati, Ohio. Roll-paper holder and cutter	416,927	Dec. 10	1153	315	49	1606
Lawton, James B., Cincinnati, Ohio. Soap-stamping machine	418,467	Dec. 31	3498	915	49	2057
Le Baron, George A. (See Barlow, Charles, assignor.)						
Le Fever, Jacob M., Strang, Nebr. Feed-trough	414,814	Nov. 12	962	250	49	937
Le Gros, Alfred P., assignor to Le Gros Building and Car Roofing Company, Louisville, Ky. Car-roof	416,928	Dec. 10	1154	316	49	1606
Le Gros Building and Car Roofing Company. (See Le Gros, Alfred P., assignor.)						
Le Las, Robert, Walnut Tree, near Cardiff, England, and A. Robin, Paris, France. Furnace	411,865	Oct. 1	132	34	49	28
Le Patourel, Harry. (See Coleman, George D., assignor.)						
Len, Edwin H., and W. B. Marks, Richmond, Va. Seal for seal locks	417,358	Dec. 17	1805	485	49	1741
Len, Edwin H., and W. B. Marks, Richmond, Va. Seal-lock	417,359	Dec. 17	1806	485	49	1741
Lea, Henry G., Nevada, Ohio. Road cart	411,863	Oct. 1	129	33	49	27
Loudhart, Olen D., Anderson, Ky. Shear	415,321	Nov. 26	2393	634	49	1225
Leach, Charles, assignor to W. E. Turner, Benkleman, Nebr. Screw-die	412,855	Oct. 15	1585	413	49	322
Leach, Henry B., assignor to L. H. Cook, Boston, Mass. Safety-razor	416,113	Nov. 26	3004	792	49	1349
Leach, Mark J., Heaton, and J. Bentley, Bradford, county of York, England, assignors to J. and J. Dobson, Philadelphia, Pa. Loom for weaving double pile fabrics	414,646	Nov. 5	716	185	49	882
Leach, Mark J., Heaton, and J. Bentley, Bradford, county of York, England, assignors to J. and J. Dobson, Philadelphia, Pa. Loom for weaving double pile fabrics	414,647	Nov. 5	719	186	49	882
Leachman, William B. (See Nussey and Leachman.)						
Leake, Samuel R., Philadelphia, Pa. Slot-closer for railways	414,227	Nov. 5	74	17	49	753
Leas, Charles W. (See Bowyer and Leas.)						
Learned, William B., assignor of one-half to E. Howard Watch and Clock Company, Boston, Mass. Watch-movement box	412,030	Oct. 1	366	94	49	74
Leary, Lewis E., Danvers, Mass. Safety-top for engines	415,277	Nov. 10	1680	426	49	1077
Leavitt, Frank M., Brooklyn, A. O. Kittredge, New York, and J. White, Brooklyn, N. Y., assignors to Vulcan Company, Philadelphia, Pa. Brace-bender	417,255	Dec. 17	1634	443	49	1710
Leavitt, Fred L., Auburn, Me. Preparing medicinal plasters	411,815	Oct. 1	58	16	49	14
Leavitt, William C., Norway, Me. Handle for metallic vessels	412,763	Oct. 15	1458	381	49	919
Levyer, Edwin D., Jersey City, N. J. Pneumatic dispatch-tube	411,864	Oct. 1	131	34	49	28
Levyer, Edwin D., Jersey City, N. J. Pneumatic dispatch apparatus	417,828	Dec. 24	2520	663	49	1288
Leher, Luther H., York, assignor of one-half to G. B. Anderson, Pittsburgh, Pa. Incandescent electric lamp	416,632	Dec. 3	722	196	49	1514
Leblanc, Leon, and Leblanc, Tipton, Ind. Self-closing gate	413,193	Oct. 22	2059	544	49	427
Leckie Button and Manufacturing Company. (See Severance, John N., assignor.)						
Leckie, William J., 24, Boston, Mass. Button	412,961	Oct. 15	1733	453	49	331
Ledig, Charles E., and William B. Park, New York, N. Y. Electrical annunciator	415,915	Nov. 26	2671	700	49	1281

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.
			Spec.	Debt.	
Lee, Charles T., et al. (See McCarthy, Louis, assignor.)					
Lee, David T., St. John's Wood, county of Middlesex, England. Anatomical model.....	411,816	Oct. 1	50	16	49 14
Lee, Edgar J. (See Fenner and Lee.)					
Lee, George W., Muncie, Ind. Evaporating apparatus.....	415,541	Nov. 19	3110	548	49 1162
Lee, Harry S., Tecumseh, Mich. Folding table.....	415,841	Nov. 26	2564	669	49 1238
Lee, James H. (See De Bogory, Progre P., assignor.)					
Lee, James M., Eurcka, Utah Terr. Apparatus for reclaiming ores from residuum.....	414,554	Nov. 5	568	146	49 854
Lee, John, Chester, Pa. Paper-bag holder.....	416,815	Dec. 10	1036	279	49 1381
Lee, Osmin F., Wonevise, Wis. Thill-tug.....	416,206	Dec. 3	217	56	49 1411
Lee, William J., Trenton, N. J. Column, strut, girder, &c.....	412,307	Oct. 8	962	233	49 163
Lee, William W., Northampton, Mass. Hollow handle for implements.....	412,377	Oct. 8	726	189	49 150
Lee, William W., Northampton, Mass. Blank for welded hollow handles.....	412,378	Oct. 8	728	190	49 150
Leedy, John K., Tom's Brook, Va. Siphonic and compressed-air system for conveying liquids.....	413,194	Oct. 22	3090	544	49 437
Leep, Jeremiah G., Red House Shoals, W. Va. Nut-lock.....	413,402	Oct. 22	2409	624	49 477
Lefebvre, John J., Culver, Wis. Cow-milking machine.....	417,050	Dec. 10	1330	364	49 1641
Lefebvre, John W., and L. D. Young, Jr., Toledo, Iowa. Brake for thrashing-machines.....	412,515	Oct. 8	1076	281	49 218
Lefelt, Addison, Xenia, Ohio. Planter.....	414,912	Nov. 12	1120	290	49 967
Leferts, Lefert, et al. (See Cole, Jonah R., assignor.)					
Lefingwell, John G., assignor of one-half to M. A. Matteson, Newark, N. J. Cutting-machine.....	415,045	Nov. 12	1315	342	49 1005
Lehm, Albert E., Sangerman, N. Y. Shovel &c.....	412,764	Oct. 15	1459	351	49 299
Lehman, S. (See Harrah, Philip J., assignor.)					
Lehmann, Christian H., and J. H. Southcott, Adelaide, South Australia. Combined hame and collar for horses.....	412,623	Oct. 8	1359	324	49 254
Leibe, Hugo, Baltimore, Md. Harrow and harrow.....	412,516	Oct. 8	1077	281	49 218
Leibe, Hugo, Baltimore, Md. Crupper-machine.....	416,466	Dec. 3	463	126	49 1463
Leinritz, Frederick E., Birmingham, Ala. Passenger-recorder for sleeping-car berths.....	417,051	Dec. 10	1332	365	49 1642
Leinritz, Frederick E., Birmingham, Ala. Electric herb-register for sleeping-cars.....	417,052	Dec. 10	1336	365	49 1643
Leighton, Carleton F., assignor to C. S. Hill, Beverly, and F. D. Greene, Boston, Mass. Heel and sole blocking machine.....	415,674	Nov. 19	2325	607	49 1303
Leinard, Edgar A., and G. W. Sheets, Karle, Ohio. Fence-machine.....	412,634	Oct. 8	1359	329	49 254
Leith, Leslie W. (See Koch, Adolph, assignor.)					
Leland, Edwin A., assignor to L. Richardson, Brooklyn, N. Y. Brake-hose coupling.....	412,103	Oct. 1	461	120	49 93
Leinasters, Elijah, Peoria, Ill. Car-coupling.....	414,618	Nov. 5	730	186	49 822
Leinley, Gottlieb. (See Rudolph, E. and Rudolf Lemley, and Siegfried.)					
Lemp, Hermann, Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Compensating electric meter.....	416,339	Dec. 3	974	72, 73	49 1423
Lemp, Hermann, and E. Thomson, Lynn, Mass. Making collars on axles by electricity.....	418,188	Dec. 31	3093	812	49 2006
Leonard, Addison E., Kinley, Kansas. Squeezer.....	415,542	Nov. 19	3111	549	49 1162
Leonard, Arthur G., New York, N. Y. Ventilated railway-car.....	411,940	Oct. 1	134	34	49 28
Leonard, Charles W., Willow Springs, Nehr. Straw-burner.....	414,238	Nov. 5	76	17, 18	49 753
Leonard, George B. (See Latulip, Frederick, assignor.)					
Leonard, George B. (See Way, Frank S., assignor.)					
Leonard, George D., New Haven, Conn. Noe-hag.....	412,955	Dec. 17	2629	746	49 1947
Leonard, George E., Farmington, Wis. Tuhular heating-drum.....	417,256	Dec. 17	1637	443	49 1711
Leonard, Harry W., Chicago, Ill. Electric train-brake system.....	417,874	Dec. 9	2575	689	49 1890
Leonard, Michael B., Richmond, Va. Electric heater.....	414,418	Nov. 5	764	90	49 813
Lester, Eugene C., et al. (See Brundage, William D., assignor.)					
Leslie, Andrew. (See Melick, William B., assignor.)					
Letcher, J. S., et al. (See Richardson, George, assignor.)					
Letchworth, Josiah, Buffalo, N. Y. Hame.....	415,792	Nov. 26	2305	625	49 1225
Letts, Ellsworth M., Waverly, N. Y. Mowing-machine.....	412,104	Oct. 1	463	120	49 93
Levar, P. C. (See Batter, Frank, assignor.)					
Lever, Henry, assignor of one-half to R. Redford, Methuen, Mass. Combing-machine.....	414,555	Nov. 5	570	147, 148, 149	49 854
Levey, Charles. (See Gurney, Levey, and Peniston.)					
Levi, Emil S., et al. (See Carter and Peitz, assignors.)					
Levin, Leonhard, San Francisco, Cal. Trolley.....	417,428	Dec. 17	1997	508	49 1760
Levitas, Israel, Marinette, Wis. Tumbler washer and drier.....	417,557	Dec. 17	1638	444	49 1711
Levy, Dreyfus & Co. (See Meyrowitz, Emil B., assignor.)					
Levy, Marc A., St. Louis, Mo. Apparatus for reproducing copies of writings, drawings, &c.....	412,635	Oct. 8	1261	329	49 254
Levy, Nathan, Auburn, N. Y. Lemon-squeezer.....	412,745	Oct. 29	2745	740	49 589
Levy, Samuel M., New York, N. Y. Check-punch.....	416,929	Dec. 10	1155	316	49 1606
Levy, William M., assignor of two-thirds to A. Bernd and Rothschild Brothers, St. Louis, Mo. Holder and packing device for hats.....	417,677	Dec. 17	2525	605	49 1833
Levinthal, L. (See Spangler, Samuel H., assignor.)					
Lewis, Charles C., Westfield, N. Y. Fruit-basket.....	412,105	Oct. 1	465	121	49 94
Lewis, Enoch S. (See Gerking and Lewis.)					
Lewis, G. W. (See Mellon, John S., assignor.)					
Lewis, George T. (See Robinson, Charles H., assignor.)					
Lewis, Sherwood R., Hunter, N. Y. Wagon-seat lock.....	416,930	Dec. 10	1157	316	49 1606
Lewis, Stephen Y. (See Loop, William H., assignor.)					
Lewis, William H., Rome, N. Y. Spring-pillow.....	414,229	Nov. 5	78	18	49 753
Lewis, Charles, assignor to J. Kohn, New York, N. Y. Sewing-machine.....	413,757	Oct. 29	2917	730	49 598
Leyburn, Edward W., Lexington, Va. Car-coupling.....	414,230	Nov. 5	79	19	49 753
Lezard, Flavien E., et al., trustees. (See Julian, Henry F., assignor.)					
Lhotte, George, New Orleans, La. Chimney-cover.....	415,916	Nov. 26	2575	700, 701	49 1282
Liardet, Wilbraham E., Cambrin, New South Wales. Manufacture of explosives.....	417,429	Dec. 17	1999	509	49 1761
Libbey, Hosea W., Boston, Mass. Combined sleeping and parlor car.....	411,917	Oct. 1	60	17	49 15
Libbey, Hosea W., Boston, Mass. Anti-friction bearing.....	411,818	Oct. 1	62	17	49 15
Libbey, Hosea W., Boston, Mass. Railway-rail.....	412,192	Oct. 1	506	155	49 119
Libbey, Hosea W., Boston, Mass. Railway-rail.....	412,636	Oct. 8	1263	329	49 254
Libbey, Hosea W., Boston, Mass. Switch for street-railways.....	412,637	Oct. 8	1263	329	49 255
Libbey, Hosea W., Boston, Mass. Anti-friction bearing for vehicle-wheels.....	413,145	Oct. 15	2011	534	49 405
Libbey, Hosea W., Boston, Mass. Wheel for vehicles.....	413,525	Oct. 22	2251	669	49 528
Libbey, Hosea W., Boston, Mass. Wheel for vehicles.....	413,528	Oct. 29	3060	797	49 630

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Libbey, Hosea W., Boston, Mass. Street-railway.....	414,060	Oct. 29	3380	878	49	695
Libbey, Hosea W., Boston, Mass. Rail for street-railways.....	414,061	Oct. 29	3381	879	49	696
Libbey, Hosea W., Boston, Mass. Railway-rail.....	414,062	Oct. 29	3381	879	49	696
Libbey, Hosea W., Boston, Mass. Combined metallic cap and fastener for bottles.....	415,171	Nov. 12	1530	394	49	1040
Libbey, Hosea W., Boston, Mass. Electric railway.....	415,573	Dec. 31	3362	877	49	859
Libbey, Frederick M., Portland, Me. Cork-wood pen-holder.....	414,659	Oct. 29	3380	878	49	695
Liebert, Eduard, Berlin, Germany. Manufacture of explosives.....	413,070	Oct. 15	1887	.....	49	381
Liepmann, Henry. (See Mayer and Liepmann.)						
Light, Abraham J., Lebanon, Pa. Attachment for scrubbing-buckets.....	413,596	Oct. 23	2561	669	49	522
Light, John, Garden City, Kans. Method of and system for obtaining water-supply.....	413,543	Nov. 19	2113	549	49	1162
Lightfoot, David N. (See Taylor and Lightfoot.)						
Lightfoot, John S., et al. (See Taylor and Lightfoot, assignors.)						
Lightner, Peter, Landisburg, Pa. Fence.....	413,258	Oct. 22	2182	569	49	445
Lignifurum Tuling Company. (See MacFarlane, James, assignor.)						
Lilley, Pleasant A., Irvine, Ky. Instrument and medicine case.....	416,790	Dec. 10	952	258	49	1364
Lilly, Francis G., assignor to C. H. Gregory, Jamestown, N. Y. Oil-burner for heating purposes.....	411,964	Oct. 1	271	70	49	55
Lincoln, Charles L., assignor to Yale & Towne Manufacturing Company, Stamford, Conn. Lock.....	416,467	Oct. 3	64	198	49	1463
Lincoln, George T., Leominster, Mass., assignor to Shelton Comb Company, Huntington, Conn. Manufacturing articles from shell, &c.....	412,398	Oct. 8	903	236	49	1193
Lindberg, Andrew H. and P. A., New York, N. Y. Chair or seat.....	417,327	Dec. 17	1744	470	49	1731
Lindberg, Peter A. (See Lindberg, Andrew H. and P. A.)						
Lindemann, Otto. (See Seifert, Friedrich W. R., assignor.)						
Lindenschmidt, Frederick J., Milwaukee, Wis. Urethral irrigator and dilator.....	414,981	Nov. 12	1223	319	49	987
Lindenthal, Gustav, Pittsburgh, Pa. Rotary mulling-furnace.....	414,536	Nov. 5	577	149	49	835
Linder, Moss A., Pullman, Ill. Runner attachment for vehicle-wheels.....	413,430	Oct. 22	2472	642	49	500
Linderman, Albert T., Whitehall, Mich. Slab-sawing machine.....	411,922	Oct. 1	209	54, 55	49	43
Linderman, Albert T., Whitehall, Mich. Dovetail joint-closing machine.....	411,923	Oct. 1	212	55	49	44
Linderman, Albert T., Whitehall, Mich. Corner joint for packing-boxes.....	411,924	Oct. 1	215	55	49	44
Linderman, Albert T., Whitehall, Mich. Cut-off sawing-machine.....	413,925	Dec. 1	215	56	49	45
Linderman, Albert T., Whitehall, Mich. Corner-fastening for crates.....	413,943	Oct. 29	3203	836	49	658
Linderman, Albert T., Whitehall, Mich. Frame-work for crates.....	414,715	Nov. 12	896	215	49	911
Lindström, Hjalmar, assignor of one-half to C. Anderson, Chicago, Ill. Mower.....	416,468	Dec. 3	465	136	49	1463
Lindgren, August, assignor to Moline Plow Company, Moline, Ill. Cultivator.....	412,106	Oct. 1	465	125	49	94
Lindgren, August, assignor to Moline Plow Company, Moline, Ill. Harrow.....	412,107	Oct. 1	467	121	49	94
Lindgren, August, assignor to Moline Plow Company, Moline, Ill. Corn-planter.....	413,108	Oct. 1	467	122	49	94
Lindner, Moritz, Berlin, Ontario, Canada. Toy or model horse.....	412,109	Oct. 1	468	122	49	94
Lindsay, George W., Gainesville, Tex. Combined torch and gas-burner key.....	412,765	Oct. 15	1460	382	49	599
Linsley, John C., Jr. (See Akers, William P., assignor.)						
Linsley, Charles E. (See Linsley, Edward and C. E.)						
Linsley, Edward and C. E., Cleveland, Ohio. Transferring apparatus.....	418,525	Dec. 31	3596	929 940 925 927	49	2108
Linsley, Isaac, deceased, Pawtucket, R. I.; C. A. Warland administrator. Loom for weaving with short wets.....	415,723	Nov. 26	3396	636	49	1236
Linsley, William D., Huntsville, Kans. Seeding-machine.....	414,419	Nov. 5	365	90	49	813
Linsley, William D., Huntsville, Kans. Seed-planter.....	414,420	Nov. 5	367	90	49	813
Linse, Anton, Chicago, Ill. Waudrohe-bed.....	415,724	Nov. 26	2401	927	49	1236
Lines, Augustus A., Homer, assignor to Hitchcock Manufacturing Company, Cortland, N. Y. Carriage-prop.....	417,328	Dec. 17	1745	470	49	1732
Lingle, William H., assignor of three-fourths to D. M. Estey, Owosso, Mich. Movable seat for carts.....	417,053	Dec. 10	1338	366	49	1643
Lingo, Louis J. (See Ainsworth and Lingo.)						
Linder, William T. (See Holmes, Louis B., assignor.)						
Linton, John W. (See Brewington and Linton.)						
Linton, Thomas J., Trafalgar, Ind. Fence.....	416,469	Dec. 3	469	127	49	1464
Lipe, Milton W., San José, Cal. Wood-sawing machine.....	414,421	Nov. 5	368	91	49	813
Lipp, Jacob, assignor of one-half to W. L. Smith, De Graff, Ohio. Combined collar and breast-strap.....	412,103	Oct. 1	597	155	49	119
Lipp, Simpson, Stonewall, Tex. Bee-hive stand.....	416,931	Dec. 10	1158	317	49	1607
Lipplitz, Elkin, Zanesville, Ohio. Circular-knitting machine.....	415,917	Nov. 26	3062	701	49	1283
Liscom, John. (See Lunt and Liscom.)						
Lister, George. (See Erling, Thomas, assignor.)						
Little, Charles E., Mount Carroll, Ill. Gate.....	413,527	Oct. 22	2562	669	49	522
Little, Christopher B., Providence, R. I. Fire-ladder.....	415,873	Nov. 26	3607	682	49	1297
Little, George H., Los Angeles, Cal. Agricultural machine.....	412,638	Oct. 8	1264	330	49	255
Little, George W., Carbondale, Kans. Suspension-bridge.....	417,054	Dec. 10	1340	367	49	1643
Little, Peter E., assignor to Stoddard Manufacturing Company, Dayton, Ohio. Horse bay-rake.....	413,796	Oct. 29	925	749	49	500
Little, Peter E., assignor to Ohio Brake Company, Dayton, Ohio. Horse-hair.....	418,199	Dec. 31	3095	750	49	2006
Littlefield, Charles A., assignor to E. A. Tuttle, Fall River, Mass. Loom.....	418,864	Nov. 12	1042	399	49	952
Littlefield, Charles A., Fall River, assignor to Dutcher Temple Company, Hopedale, Mass. Loom-temple.....	415,172	Nov. 12	1531	394	49	1040
Littlejohn, Charles F., Bridgeport, Conn. Presser-foot and overlay-guide for sewing-machines.....	413,225	Oct. 22	2205	586	49	467
Littler, Peter, T. Haslam, and J. Moorcroft, Liverpool, county of Lancaster, England. Combined air-heater and steam-boiler.....	413,758	Oct. 29	2918	760	49	398
Littman, Max, St. Louis, Mo. Line-ring for harnes.....	416,633	Dec. 3	724	196	49	1314
Livewadze, Henry C., Lawrence, Mass. Tension-regulating device for loom-shuttles.....	413,195	Oct. 22	3092	544	49	427
Livingston, Fred T., Snohomish, Wash. Harness.....	418,036	Dec. 24	2830	747	49	1947
Livingston, Julius L. and W. Griscom, Jr., Bound Brook, N. J., assignors to Standard Paint Company, of New York. Plastic compound for roofing, &c.....	416,791	Dec. 10	953	.....	49	1565
Livingston, Thomas P., et al. (See Phillips, Edwin G., assignor.)						
Lloyd E. Starr. (See Sagenodner, Frank E., assignor.)						
Lloyd, John H. (See Root, Miles C., assignor.)						
Locher, August, Tompkinsville, N. Y. Sea-oiling cartridge.....	413,346	Oct. 22	2332	604	49	472
Lochmann, Oskar F., Gohlis, near Leipzig, Saxony, Germany. Music-plate for mechanical instruments.....	417,649	Dec. 17	2243	596	49	1826
Lochmann, Oskar F., Gohlis, near Leipzig, Saxony, Germany. Damping device for music-boxes.....	417,650	Dec. 17	2244	596	49	1826
Lockwood, Charles L., Philadelphia, Pa. Paper box.....	414,321	Nov. 5	209	52	49	780

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. &c.	Vol.	Page.
Lockwood, Joseph E., assignor of one-half to C. P. Larned, Detroit, Mich. Galvanometer.	414,422	Nov. 5	369	91	49	144
Lockwood, Sanford D., Wheeling, W. Va. Tubular lantern.	418,047	Dec. 24	2531	747	49	1948
Loeb & Schoenfeld. (See Wiget, Jean, assignor.)						
Loeb, William, Providence, R. I. Button or stud.	416,470	Dec. 3	469	127	49	1464
Loechner-Solmanns, Fabrik, Kild and Braun. (See Held, Heinrich, assignor.)						
Loewer, Martha, and C. Yanth, Brooklyn, N. Y. John-rest	413,507	Oct. 29	2989	779	49	611
Loewenstein, Morris, et al. (See Daniel, Thomas J., assignor.)						
Loewy, Benno. (See Woolf, Albert E., assignor.)						
Lottie, Henry, Syracuse, N. Y. Gang spoon-hall.	418,200	Dec. 31	3096	312	49	2006
Logan, Charles H., Toronto, Ontario, Canada. Secondary battery.	417,055	Dec. 10	1342	368	49	1644
Logan, Jane, et al. (See McCarty, William F. M., assignor.)						
Logan, John T., et al. (See Deniger, Joseph H., assignor.)						
Logan, Stephen H., Coal Hill, Ark. Permutation padlock	415,046	Nov. 12	1316	343	49	1006
Logan, Thomas H., Lowell, Mass. Pen-holder rest	416,003	Nov. 26	2811	737	49	1312
Logan, Thomas H., assignor to H. R. Fletcher, trustee, Lowell, Mass. Support for spinning-spindles	412,031	Oct. 1	367	94	49	74
Lohnes, Conrad. (See Rhonemus and Lohnes.)						
Lomas, John R., assignor of one-half to B. Shoulinger, West Haven, Conn. Music-rack for pianos	416,471	Dec. 3	470	127	49	1464
Lommatzsch, E. Emil. (See Krasny, Lommatzsch, and Kueffer.)						
Lommer, Gustav H., Cairo, Ill. Portable dam for regulating channels and banks	414,913	Nov. 12	1121	291	49	967
Lomman, James F., Philadelphia, Pa. Grate-cup	417,430	Dec. 17	1901	500	500	1761
Long, Clark, and J. B. Osborn, Gallatin, Mo. Expansion-clamp for sheet-metal cans	415,544	Nov. 19	2114	549	49	1163
Long, Frank M., et al. (See Brandt, Charles M., assignor.)						
Long, H. K., et al. (See Long, James B., assignor.)						
Long, James B., assignor to H. R. and H. Long, Rochester, N. Y. Filter-pan	416,634	Dec. 3	725	196	49	1514
Long, Richard, deceased; J. M. Johnson, Chicago, Ill., administrator. Rail-joint	413,622	Oct. 22	2722	706	49	250
Long, Richard, deceased; J. M. Johnson administrator and assignor to Long Spring Truss Joint Company, Chicago, Ill. Spring truss-support for rail-joints	413,347	Oct. 22	2533	605	49	472
Long Spring Truss Joint Company, Chicago, Ill. (See Long, Richard.)						
Long, Thomas, Boston, Mass. Expandable reamer	417,360	Dec. 17	1899	486	49	1742
Long, Timothy. (See Rucker and Long.)						
Long, W. H., et al. (See Long, James B., assignor.)						
Long, William H., Troy, assignor of one-half to T. D. Robinson, Brunswick, N. Y. Dump-bag wagon	418,338	Dec. 31	3308	865	49	2048
Long, Zadoc V., Peoria, Nebr. Fence-wire stretcher	417,431	Dec. 17	1902	509	49	1761
Longcope, E. M., et al. (See Richardson, George, assignor.)						
Longcoy, William H. (See Compton and Longcoy.)						
Long's Sons, L. L. (See Howd, Charles B., assignor.)						
Loomis, Alice M., et al. (See Loomis, John F., assignor.)						
Loomis, Burdett, Hartford, Conn. Process of and apparatus for the manufacture of gas. (Release)	11,036	Oct. 22	2748	712 713	49	557
Loomis Electric Manufacturing Company, New York, N. Y. (See Loomis, Oshorn P., assignor.)						
Loomis, Frank F., Akron, Ohio. Armature-core for dynamos and motors.	415,363	Nov. 19	1820	474	49	1102
Loomis, Franklin D., assignor to T. F. Krajewski, J. L. Cochrane, Brooklyn, N. Y., and A. Pesant, Havana, Cuba. Hoisting-machine	413,623	Oct. 22	2724	706	49	551
Loomis, John F., Shelby, assignor to C. A. Altman, New York, N. Y. Sheet-metal-heating machine	416,229	Dec. 3	112	32	49	1390
Loomis, L. M., Shelby County, Iowa. Elastic pump-rod	415,311	Nov. 19	1584	408	49	1058
Loomis, Lyman L., Bainbridge, N. Y. Invalid-bedstead	412,962	Oct. 15	1733	453	49	351
Loomis, Oshorn P., Somerville, Mass., assignor to Loomis Electric Manufacturing Company, New York, N. Y. Incandescent-lamp socket	412,451	Oct. 22	2473	642	49	501
Loop, William H., assignor of one-half to S. V. Lewis, Cohoes, N. Y. Sheet-metal-heating machine	413,676	Oct. 22	2810	731	49	577
Loos, John, Freeport, Ill. Martingale-loop	413,473	Dec. 3	473		49	1464
Lorenz, Augustine, New York, N. Y. Tonic	413,676	Oct. 22	2810	731	49	577
Lorenz, Lewis P. (See Lorenz, Philip and Co.)						
Lorenz, Philip and L. P., Rimerburg, Pa. Moving-machine	414,063	Oct. 29	3322	879	49	696
Lorenz, Wilhelm, Karlsruhe, Baden, Germany. Percussion-lock	417,432	Dec. 17	1903	509	49	1761
Lorenz, Wilhelm, Karlsruhe, Baden, Germany. Lance	417,433	Dec. 17	1906	509	49	1762
Lorenz, William A. (See Claussen, Edward E., assignor.)						
Lorenz, William A., Hartford, Conn. Paper-bag machine	418,201	Dec. 31	3097	812 813	49	2007
Lorenz, William A., Hartford, Conn. Paper bag	418,201	Dec. 31	3227	844	49	2032
Lorimer, Walter A., assignor of one-half to J. H. Lorimer, Philadelphia, Pa. Dyeing-machine	412,887	Oct. 15	1630	436	49	331
Loring, G. A., et al. (See Gentry, John W., assignor.)						
Loring, William B., Reading, Mass. Box or case for musical instruments	414,331	Nov. 5	80	19	49	754
Lorraine, Madison J., St. Louis, Mo., assignor, by mesne assignment, to Keystone Car Coupler Company, of Illinois. Car-coupling	415,309	Nov. 19	1738	452	49	1088
Lorraine, Madison J., and F. P. Wherry, St. Louis, Mo., assignors to Keystone Car Coupler Company, of Illinois. Car-coupling	418,576	Dec. 31	3673	960	49	2123
Lott, Harry H., and C. Ziegler, Wapakoneta, Ohio, Churn	414,064	Oct. 29	3394	860	49	696
Lothian, John. (See Rymer, William, assignor.)						
Lott, Charles E., et al. (See Smith, George A., assignor.)						
Lott, John B., Kittanning, Pa. Vehicle-wheel	415,344	Nov. 19	1792	466	49	1098
Lott, John B., Kittanning, Pa. Vehicle-wheel	415,354	Nov. 19	1820	474	49	1102
Loughery, Robert J., San Francisco, Cal. Address-tag	418,472	Dec. 3	472	128	49	1464
Lonnaberry, John, Owego, N. Y. Fence-post	412,766	Oct. 15	1461	382	49	300
Louay, George. (See Kramer and Louay.)						
Louay, John P. (See Stevens, John C., assignor.)						
Loveland, Frank O. (See Phillips, Frank R., assignor.)						
Low, Abbot A. (See Johnson and Low.)						
Low, Barney F. (See Clapp and Low.)						
Lowden, George W. (See Stokes, Charles H., assignor.)						
Low, Frank W. (See Sullivan, Cornelius F., assignor.)						
Lowe, Harry, Montpelier, Vt. Device for measuring the height of horses	414,232	Nov. 5	81	19	49	754
Lowe, James L., assignor to Golden Belt Manufacturing Company, Durham, N. C. Bag-sewing machine	416,474	Dec. 3	473	128	49	1464
Lowe, Julius F., P. P. Frankfort, Wapakoneta, Ohio. White lead	417,424	Dec. 17	1906	594	49	1702
Lowe, Rosa H., Sumner, Wash. Ter. Device for securing the covers of beds	413,071	Oct. 15	1887		49	481
Lowe, Wade H., assignor to himself and E. I. Persinger, Campt, La. Vehicle running-gear	413,403	Oct. 22	2410	624	49	387
Lowell, Joseph B., Chelsea, Mass. Wrench	417,229	Dec. 24	2522	664	49	1888

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. et	Vol.	Page.
Lowry, George A., assignor of one-half to W. L. May, Des Moines, Iowa. Twine for binding grain	412,963	Oct. 15	1736	454	49	351
Loy, Irvin W., and R. O'Toole, Mechanicstown, assignors of one-third to J. E. Mathews, Baltimore, Md. Railway-signal	417,258	Dec. 17	1639	444	49	1711
Loyd, Doctor M., Fayette County, assignor of two-thirds to C. Weston, Washington Court-House, Ohio. Harrow	416,475	Dec. 3	476	129	49	1475
Lucas, Isaac E., Clarksville, Iowa. Draft-equalizer	413,072	Oct. 15	1828	494	49	382
Lucas, John H. (See Watkins, William D., assignor.)						
Ludlam, Joseph S. (See Claus, Adolph, assignor.)						
Ludlow, Edgar S. (See Ludlow, William E. and E. S.)						
Ludlow, Rodney F., Springfield, Ohio. Converter	412,767	Oct. 15	1462	382	49	300
Ludlow, Rodney F., Springfield, Ohio. Making steel	412,768	Oct. 15	1464	383	49	300
Ludlow, Samuel W., Madisonville, assignor of one-third to J. R. Brownell, Dayton, Ohio. Safety steam-generator	413,284	Oct. 22	2235	580	49	456
Ludlow, William E. and E. S., Toledo, Ohio. Coal-bucket	413,286	Oct. 22	2154	561	49	439
Ludwig, Bernhard, Vienna, Austria-Hungary. Machine for bending wood	417,036	Dec. 10	1344	362	49	1844
Ludwig, Heinrich E., Berne, Switzerland. Rack-rail for mountain-railways.	413,827	Oct. 29	3019	786	49	617
Luft, Henry A., New York, N. Y. Folding table	414,065	Oct. 29	3355	880	49	696
Lugrin, Henry A., Brooklyn, N. Y. Stop-watch	418,577	Dec. 31	3676	961	49	2123
Lukens, William J. (See Spaulding, George H., assignor.)						
Lunn, Steward A., and J. Liscom, assignors of one-third to A. Kitts, Renwick, Iowa. Wind-wheel attachment	415,075	Nov. 19	2036	607	49	1303
Lumis, Thomas J., Hartford, Conn., assignor to Thorne Machine Company, of New York. Type-setting machine	417,057	Dec. 10	1346	369	49	1645
Lumley, Edwin J., assignor to A. R. Williams, Washington, D. C. Machine for making bullets and shot	417,733	Dec. 24	2373	625	49	1859
Lundholm, Otto W., assignor to E. C. Smith, Muchachinock, Iowa. Lock	411,994	Oct. 1	311	81	49	43
Lunzen, Adam, New York, N. Y. Gas-lighting system	416,635	Dec. 3	726	197	49	1515
Lunkenheimer Brass Manufacturing Company. (See Lunkenheimer, Edmund, assignor.)						
Lunkenheimer Brass Manufacturing Company. (See Lunkenheimer, Frederick, assignor.)						
Lunkenheimer, Edmund, assignor, by mesne assignments, to Lunkenheimer Brass Manufacturing Company, Cincinnati, Ohio. Oil-cup	418,578	Dec. 31	3679	961	49	2124
Lunkenheimer, Frederick, assignor to Lunkenheimer Brass Manufacturing Company, Cincinnati, Ohio. Oil-cup	418,578	Dec. 31	3679	961	49	2124
Luppen, Luppe, Pekin, Ill. Wheel-pulley	418,445	Dec. 31	3776	986	49	2143
Lutgen, James R., Brock, Nehr. Boiler	415,350	Nov. 19	1634	102	49	1008
Luth, William, assignor of one-half to L. C. Therkildsen, Newport, R. I. Life-boat	416,412	Dec. 3	388	104	49	1447
Luther, Benjamin G., Worcester, Mass. Matching-machine	413,073	Oct. 15	1890	495	49	382
Luther, Benjamin G., Worcester, Mass. Matching-machine	418,352	Dec. 31	3334	871	49	2053
Lutz, Johann, assignor to P. Oldéy & Söhne, Vienna, Austria-Hungary. Inflammable composition for matches	418,302	Dec. 31	3069	.....	49	2007
Lutz, Samuel, et al. (See Philipp, Frank A., assignor.)						
Lutzenberger, William. (See Schardt and Lutzenberger.)						
Lyksett, Edward O., and A. G. Braun, Denver, Colo. Tilting wagon	412,923	Oct. 1	640	167	49	128
Lyle, William P., Philadelphia, Pa. Toy or game	417,058	Dec. 10	1348	369	49	1645
Lyman, Robert. (See Beach, Elias, assignor.)						
Lynam, Joseph, San José, Cal. Book-stapling machine	412,712	Oct. 8	1376	358	49	276
Lynch, Edward P., Davenport, Iowa. Mold-board plow	412,110	Oct. 1	469	122	49	95
Lynch, Edward P., Davenport, Iowa. Combined lister plow and planter	418,526	Dec. 31	3602	910	49	2110
Lynch, Francis T., Baltimore, Md. Dumping-cart	414,947	Nov. 12	1170	305	49	977
Lynch, John, Washington, D. C. Terra-cotta construction	414,716	Nov. 12	828	215	49	911
Lynch, John A. (See Shufeldt and Lynch.)						
Lynch, Vernon T., Chicago, Ill. Center bar for cable-grips	417,875	Dec. 24	2586	671	49	1299
Lynd, Ives, Troy, N. Y. Rail-joint	418,374	Dec. 31	3364	988	49	2050
Lyon, Augustus G., McKeesport, Pa. Pin-securer for piano hammers and jacks	418,527	Dec. 31	3604	940	49	2110
Lyon, Edward H., Needham, Mass. Telephone	416,476	Dec. 3	477	129	49	1415
Lyon, George, Chicago, Ill. Machine for filling the ticks of mattresses	414,066	Oct. 29	3386	880	49	697
Lyon & Healy. (See Durkee, George B., assignor.)						
Lyon, Henry W. (See Bray, Morris P., assignor.)						
Lyon, Henry W., Bridgeport, Conn. Corset	415,972	Nov. 26	2771	725	49	1303
Lyons, William E., New Haven, Conn. Alternative tonio	412,769	Oct. 15	1466	.....	49	301
Lysle, Wilson, Franklin, Pa. Making wrinkled or rough-surfaced paper	414,557	Nov. 5	579	149	49	855
Lyston, Patrick. (See Lyston, John.)						
Lyte, Farnham M., London, county of Middlesex, England. Secondary battery	412,639	Oct. 8	1985	330	49	255
Lytle, Felton M., Boston, Mass., assignor, by mesne assignments, to Porous Carbon Wick Company, of Maine. Absorbent burner for liquid fuel	416,114	Nov. 26	3005	782	49	1349
Lytle, Frank J., Humboldt, Nehr. convertible trunk and wardrobe	412,710	Oct. 15	1467	383	49	301
Maacke, Gustave, et al. (See Engelen, Antoine J., assignor.)						
Mahee, Frea A., et al. (See Mayo, William A., assignor.)						
Mahee, George W., Brooklyn, N. Y. Button-hook	416,932	Dec. 10	1158	317	49	1607
MacArthur, John S., Pollokshields, county of Renfrew, Scotland. Leaching ores	413,268	Oct. 29	2990	.....	49	611
MacArthur, John S., Pollokshields, county of Renfrew, and R. W. and W. Forrest, assignors to Cassel Gold Extracting Company, (limited,) Glasgow, county of Lanark, Scotland. Metalurgical filter	412,138	Dec. 24	2999	786	49	1977
MacArthur, John S., Pollokshields, county of Renfrew, and R. W. and W. Forrest, assignors to Cassel Gold Extracting Company, (limited,) Glasgow, county of Lanark, Scotland. Separating gold and silver from ore	418,137	Dec. 24	2998	.....	49	1977
MacCarthy, Daniel F., St. Paul, Minn.	411,819	Oct. 1	63	17	49	15
MacCoy, James S., New York, N. Y. F. H. Marsh, Newark, N. J., and G. H. Williams, New York, N. Y., assignors to American Pneumatic Tool Company, of New York. Pneumatic tool	412,517	Oct. 8	1078	282	49	218
MacFarlane, James, Glasgow, Scotland, assignor to Ligniform Tubing Company, Portland, Me. Machine for spirally winding strips of wood	414,649	Nov. 5	731	187	49	863
MacIvor, Ralph W. E., London, county of Middlesex, England. White lead	413,523	Oct. 22	2563	669	49	522
MacKenzie, David. (See Carter and MacKenzie.)						
MacLaurin, George S., assignor of one-half to J. H. Crankshaw, Philadelphia, Pa. Portable scaffold	417,678	Dec. 17	2286	606	49	1833
MacMaster, James, Jr., Belleville, Kans. Music-indicator for teaching	417,734	Dec. 24	2375	625	49	1850
Macbeth, Richard Y., and L. Gourdin, Monks Corner, S. C. Drag-saw	413,404	Oct. 22	2412	625	49	489

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.
			Spec.	Dr. g.	
Macdonald, Peter M., Kerrville, Tex. Rack-and-pinion mechanism.....	413,325	Oct. 22	2226	580	49 456
Macfarlane, William T., Bridgeport, Conn. Stirrer for molten metal.....	418,692	Dec. 31	3745	978	49 2137
Macfarlane, William W., Philadelphia, Pa. Preparing logwood-extracts.....	417,492	Dec. 17	3605	....	49 1751
Mack, Edwin Z., Marshalltown, Iowa. Wire-tightener.....	413,074	Oct. 15	1393	405	49 383
Mack, William B., Boston, Mass. Injector.....	412,032	Oct. 1	368	95	49 74
Mackall, Charles, Baltimore, Md. Railway freight-car.....	412,964	Oct. 15	1736	454	49 351
Mackenzie, A. S., et al. (See Cavallaro, Francesco, assignor.)					
Mackenzie, Philip W., assignor to Fuel Gas and Light Improvement Company of America, New York, N. Y. Making gas.....	418,646	Dec. 31	3777	986	49 2143
Mackenzie, Philip W., assignor to Fuel Gas and Light Improvement Company of America, New York, N. Y. Apparatus for the manufacture of gas.....	418,647	Dec. 31	3778	986	49 2143
Mackenzie, Philip W., assignor to Fuel Gas and Light Improvement Company of America, New York, N. Y. Apparatus for the manufacture of fuel and illuminating gases.....	418,648	Dec. 31	3780	986	49 2144
Mackenzie, Philip W., assignor to Fuel Gas and Light Improvement Company of America, New York, N. Y. Apparatus for the manufacture of illuminating-gas.....	418,649	Dec. 31	3782	987	49 2144
Macphail, James, Rockford, Ill. Ferrule.....	412,033	Oct. 1	369	95	49 74
Macrae, Roderick, Baltimore, Md. Governor or regulator for electric motors.....	412,928	Oct. 15	1688	441	49 341
Macy, Russell C. (See Wilson, Charles F., assignor.)					
Madden, Wheeler M., St. George, Md. Milking-stool.....	417,929	Dec. 24	2671	704	49 1916
Mader, John F., Chicago, Ill. Vent.....	417,435	Dec. 17	1907	510	49 1768
Magee, Samuel H., Bordenstown, N. J. Garment.....	413,676	Nov. 19	3297	497	49 1384
Magill, Edwin B., La Crosse, Wis. Electric-cooler.....	414,358	Nov. 5	520	150	49 855
Magill, Edwin B., La Crosse, Wis. Body-cooler and fever-reducer.....	414,539	Nov. 5	523	150	49 855
Maginn, Madison, Chicago, Ill. Water system for protecting buildings against fire.....	415,212	Nov. 19	1585	408	49 1058
Magliola, Quirico, West Hohenok, N. J. Measuring-funnel.....	413,336	Oct. 22	2296	597	49 467
Magnier, Thomas B., Fort Gibson, I. C. Griddle, and L. W. Swafford, Vicksburg, Miss. Baffle.....	414,560	Nov. 5	584	130	49 856
Maguire, John, and N. S. Cary, Oakland, R. I. Machine for folding and winding cloth.....	415,874	Nov. 26	3608	682	49 1868
Mahant, Louis M., Detroit, Mich. Skirt-supporter.....	416,477	Dec. 3	478	139	49 1465
Mahncke, Charles L., Columbus, Ohio. Chain pipe-wrench.....	415,047	Nov. 12	1317	343	49 1006
Mahncke, Charles L., assignor to two-thirds to J. D. Wells and W. N. Weinman, Columbus, Ohio. Steam pumping-engine.....	414,156	Oct. 20	3517	915	49 723
Mahon, William L. E. (See Wheeler, Adolph, assignor.)					
Mahoney, Ella J., Detroit, Mich. Article of amusement and instruction for children.....	416,171	Dec. 3	36	112	49 1376
Mahrin, Melville B., Indianapolis, Ind. Wheel.....	414,659	Nov. 5	724	187	49 883
Maier, Otto T. (See Benseel and Maier.)					
Main, Fred. F., South New Lyme, Ohio. Automatic ribbon-reel for stenographs.....	417,361	Dec. 17	1810	496	49 1742
Main, William, Brooklyn, N. Y. Electrically-propelled vehicle.....	417,259	Dec. 17	1642	445	49 1712
Main, William B., and J. G. Burnage, Abingdon, Ill. Road-cart.....	415,725	Nov. 26	2403	628	49 1227
Mains, John F., assignor to two-thirds to B. Carr and H. M. La Follette, Indianapolis, Ind. Mail bag lock.....	413,624	Oct. 22	2725	706	49 551
Makepeace, Augustus N. (See Allen and Makepeace, assignors.)					
Makepeace, Charles E. (See Zimmerman, Eli, assignor.)					
Mallan, William, Edgemoor, Del. Locomotive fire-box.....	417,650	Dec. 10	1349	370	49 1645
Mallischeke, Karl. (See Lefort and Mallischeke.)					
Mallery, William W., Holland Patent, N. Y. Milk-cooler.....	414,561	Nov. 5	583	151	49 856
Mallette, James P. (See Scott, John, assignor.)					
Maloney, Joseph A., assignor to two-thirds to N. F. Acers, Leavenworth, and C. C. Welborn, Kansas City, Kans. Pipe-wrench.....	416,792	Dec. 10	954	238	49 1565
Maloy, James W., Marietta, Ga. Wheelbarrow.....	413,677	Oct. 29	2510	732	49 577
Maltbie, Armstrong. (See Lattalip, Frederick, assignor.)					
Mandel, Adolf, New York, N. Y. Button-sewing needle.....	413,405	Oct. 22	2413	626	49 488
Mandelbaum, Louis K., et al. (See Heck, Louis F., assignor.)					
Mandell, Albert A., Hyde Park, Mass. Suspenders.....	414,203	Dec. 31	3100	813	49 2907
Mandell, Albert A., Hyde Park, Mass. Suspenders.....	417,960	Dec. 10	1330	370	49 1645
Mandt, Targo G., Stoughton, Wis. Wagon-body fastener.....	413,529	Oct. 22	2585	670	49 523
Mandt, Targo G., Stoughton, Wis. Wagon-seat fastener.....	413,530	Oct. 22	2586	670	49 523
Manier, Benjamin F., Troy, N. Y. Car-brake.....	412,640	Oct. 8	1267	330	49 855
Manley, Henry F., Dodgebury, Pa. Machine for making car-wheels.....	414,422	Nov. 5	570	91	49 814
Mannheim, Richard J., Brooklyn, N. Y. Box-loop for harness.....	413,785	Oct. 29	2520	772	49 606
Manning, John, London, England. Machine for hveling stereotype and electrotpe plates.....	418,292	Dec. 31	3222	844 845	49 2032
Manning, John A., et al. (See Chambers, Adolph, assignor.)					
Manning, Maxwell & Moore. (See Walter, Edward P. and H. C., assignors.)					
Manny, John P., Rockford, Ill. Lemon-juice extractor.....	415,048	Nov. 12	1318	343	49 1006
Manny, John P., Rockford, Ill. Lemon-juice extractor.....	415,049	Nov. 12	1319	344	49 1007
Manny, William T., Shiloh, Tenn. Fence.....	416,933	Dec. 10	1160	317	49 1007
Mauck, David, assignor to himself and L. B. Bente, Hyde Park, Mass. Freight-door.....	416,703	Dec. 10	955	259	49 1565
Manufacturer's Special Machine Company. (See Beardslee and Russell, assignors.)					
Manz, Theodore, et al. (See Bohlenhus, Romanus and A., assignors.)					
March, Jacob M., Phenixville, Pa. Garment-supporter.....	415,973	Nov. 26	2771	725	49 1303
Marchant, George M., Huddersfield, county of York, England. Sight-feed lubricator.....	413,739	Oct. 29	2930 760 761	761	49 599
Marchal, Constantin. (See Sentex, Marchal and Saenger.)					
Marquardt, August F., Springfield, Ohio. Means for securing finger-rings.....	417,569	Dec. 17	2134	568	49 1804
Marshall-Denzler, L. (See Jacquet, Henri, assignor.)					
Maria, Jared, Columbus, Ohio. Vehicle-hub hand.....	417,735	Dec. 24	2376	626	49 1860
Maria, Jared, Columbus, Ohio. Point-hand for hubs.....	418,204	Dec. 31	3101	813	49 2907
Mark, Charlie E., assignor to Mark Metal Wheel Company, Flint, Mich. Metallic wheel.....	413,349	Oct. 29	3394	857	49 658
Mark, John W., New York, N. Y. Illuminating-tile.....	416,478	Dec. 3	478	130	49 1465
Mark Metal Wheel Company. (See Mark, Charlie E., assignor.)					
Marker, Stephen A., assignor to one-half to C. E. Bond, Newark, N. J. Sink.....	415,195	Oct. 1	598	155	49 120
Markham, Edward H., assignor to J. Stevens Arms and Tool Company, Chicopee Falls, Mass. Lathe tool.....	413,350	Oct. 29	3205	837	49 650
Markham, Walter R., Merrill, Wis. Lumber-jack.....	417,260	Dec. 17	1645	446	49 1712
Markle & Inman. (See Budd, Townsend C., assignor.)					
Marks, Francis R., Ashtand, Ohio. Slat-dressing machine.....	413,348	Oct. 22	2335	605	49 473
Marks, Henry A. (See Fowler, Frank E., assignor.)					
Marks, James, Bayonne, N. J. Attachment for paper-hangers' cutting-boards.....	414,424	Nov. 5	571	91	49 814
Marks, Moses, Omaha, Nebr. Horse-collar fastener.....	417,570	Dec. 17	2135	568	49 1804
Marks, Solomon, Cincinnati, Ohio. Assignor to Paragon Slate Company, of Ohio. School-slate.....	412,194	Oct. 1	597	155	49 120

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.
			Spec.	Di. &c.	Page.
Marks, Walter B. (See Lea and Marks.)					
Martin, John M., New Haven, Conn. Magazine fire-arm	413,196	Oct. 22	2693	545	49 427
Martin, John M., New Haven, Conn. Revolving fire-arm	413,197	Oct. 22	2694	545	49 428
Marr, Robert M., et al. (See Marr, Thomas, assignor.)					
Marr, Thomas, assignor to R. A. Marr, J. P. Jeffries, and G. S. P. Triplett, Warrenton, Va. Egg-case	416,297	Dec. 3	218	56, 57	49 1411
Marsh, Frank H. (See MacCoy, Marsh, and Williams.)					
Marsh, Fredric C., Foster, La. Means for loading and transporting cane	415,213	Nov. 19	1567	408	49 1050
Marsh, George A. Jr., Sandusky, Ohio. Relief valve for steam-engines	417,329	Dec. 17	1746	470	49 1732
Marsh, Gideon, Mancelona, Mich. Cow-tail holder	415,677	Nov. 19	3328	608	49 1304
Marsh, James A., Cleveland, Ohio. Automatic heating and lighting device for vapor-stoves	413,809	Oct. 29	2901	779	49 611
Marsh, James A., Cleveland, Ohio. Vapor heater and radiator	413,828	Oct. 29	3019	786	49 617
Marsh, Riverius, New Brunswick, N. J. Decorative frame	413,349	Oct. 22	3336	665	49 473
Marsh, Riverius, New Brunswick, N. J. Ventilating-heater	413,350	Oct. 22	3337	606	49 473
Marsh, Walter F., Benton, Iowa. Vehicle-wheel	413,760	Oct. 29	2992	761	49 599
Marshall, Fred P. (See Carr, Courtney P., assignor.)					
Marshall, George W., Romeo, Mich. Combined key-seat and key-cutting machine	416,419	Dec. 3	479	130	49 1466
Marshall, Justice W., assignor to F. A. Webster, Cazenovia, N. Y. Feed-cutter	412,034	Oct. 1	370	95	49 74
Martien, Charles H. (See Reed and Martien.)					
Mattigoni, Johann, Frankfurt, Prussia, Germany. Cutter and holder therefor	417,571	Dec. 17	2136	569	49 1804
Martin, Charles V., Moxahala, Ohio. Rotary steam-engine	417,106	Dec. 10	1549	421	49 1664
Martin, James B., assignor to Martin Midlings Purifier Company, Grand Rapids, Mich. Break-scalper	415,950	Nov. 12	1320	344	49 1007
Martin, Joseph M., Boston, Mass. Implement for removing nuts	415,114	Nov. 12	1402	366	49 1024
Martin, Lucien E., Fostoria, Ohio. Toilet-case	413,075	Oct. 15	1894	496	49 383
Martin Midlings Purifier Company. (See Martin, James B., assignor.)					
Martin, Thomas E., assignor of one-half to G. C. Boggs, Des Moines, Iowa. Burglar-alarm attachment for windows	413,951	Oct. 29	2907	837	49 659
Martin, William W., Nashville, Tenn. Seal-lock	412,641	Oct. 8	1268	330	49 253
Martine, Charles F. (See Curtis, John B., assignor.)					
Martinson, Barthelmy (See Savigny, Claude, assignor.)					
Marvin, Erigen. (See Hoopes and Marvin.)					
Marx, Julius. (See Kerner and Marx.)					
Marr, Marcus, et al. (See Drawbaugh, Daniel, assignor.)					
Mashin, John, Jersey City, N. J. Steam pump	416,172	Dec. 3	37	12	49 1376
Mason, Allan. (See Wilson and Mason.)					
Mason, Charles A., Nashua, N. H. Top-stripping winder for revolving flat cards	415,390	Nov. 19	1857	484	49 1109
Mason, Edward, and J. Hartner, Detroit, Mich. Cell-case for tobacco-pails	411,965	Oct. 1	272	70	49 55
Mason, Freeman C., et al. (See James, Jefferson P., assignor.)					
Mason, Henry I., assignor to Falls River and Machine Company, Cuyahoga Falls, Ohio. Clutch-pulley	418,205	Dec. 31	3192	814	49 2007
Mason, Isaac. (See Mason, Joseph, assignor.)					
Mason, John F., Petersburg, Va. Fan-drier	417,061	Dec. 10	1351	370	49 1646
Mason, Joseph, assignor of one-half to L. Mason, New Haven, Conn. Breech-loading fire-arm	414,651	Nov. 5	726	187	49 883
Mason Machine Works. (See Meats, John T., assignor.)					
Mason, Samuel. (See Ballard and Mason.)					
Mason, Thomas, Topeka, Kans. Combined sheathing and lath	413,350	Oct. 22	2182	569	49 445
Mason, William P. (See Eddy, John B., assignor.)					
Massey, Albert P., Watertown, N. Y. Car-brake	413,452	Oct. 22	2475	643	49 501
Massey, Albert P., Watertown, N. Y. Air-brake	414,717	Nov. 12	829	215	49 911
Massey, Albert P., Watertown, N. Y. Fluid-pressure car-brake	415,214	Nov. 19	1568	409	49 1069
Massey, Albert P., Watertown, N. Y. Air-pump	418,353	Dec. 31	3336	871	49 3054
Mast & Company, P. P. (See Mast, Phineas P., assignor.)					
Mast, Peter, Waterville, Ohio. Fence	411,995	Oct. 1	312	81	49 64
Mast, Phineas P., assignor to F. P. Mast & Company, Springfield, Ohio. Cross-head for cultivators	416,173	Dec. 3	38	12	49 1376
Masterman, William H., Alameda, Cal. Mustache-holder	417,876	Dec. 24	2567	681	49 1949
Mastick, Edwin B., Alameda, Cal. Automatic sewer-flushing tank	412,965	Oct. 15	1737	454	49 324
Mather, William, Salford Iron Works, Manchester, county of Lancaster, England. Keir	415,545	Nov. 19	2116	550	49 1163
Mather, William, Salford Iron Works, Manchester, county of Lancaster, England. Self-cleaning filter	415,648	Nov. 19	2281	595	49 1183
Matheson, Robert, assignor of one-half to R. Wood, A. Haigh, and J. Robb, Oxford, county of Cumberland, Nova Scotia, Canada. Car-coupling	412,519	Oct. 8	1081	282	49 219
Mathews, Fannie A., New York, N. Y. Curtain-pin	413,632	Oct. 29	3208	837	49 652
Mathews, John E. (See Loy and O'Toole, assignors.)					
Mathewson, Bradford A., Providence, R. I. Hand corn-sheller	417,063	Dec. 10	1353	371	49 1646
Mathewson, George W., Coventry, R. I. Power-press	412,518	Oct. 8	1060	282	49 219
Mathewson, Jeremiah E., Sheffield, England, assignor to B. C. and E. A. Tighman, Philadelphia, Pa. Cleaning files	412,771	Oct. 15	1468	368	49 301
Mathias, Theodore N., Milwaukee, Wis. Fly-net	418,038	Dec. 24	2532	747	49 1948
Mathien, Louis, and J. Morfau, Constantine, Algeria, France. Detecting coloring-matter derived from coal-tar in wine	416,794	Dec. 10	957	237	49 1566
Matt, Wilhelm, Athenia, N. J. Fire and water proof compound	412,935	Oct. 1	375	95	49 75
Mattes, Herbert J., and G. Burkhardt, Chicago, Ill. Curling-iron heater	412,888	Oct. 15	1631	426	49 321
Matteson, Charles E., Allentown, Pa. Device for supporting wire during the process of annealing	415,391	Nov. 19	1858	484	49 1110
Matteson, Margaret A. (See Leflingwell, John G., assignor.)					
Matthews, Ambrose T., et al. (See Howland, Alfred, assignor.)					
Matthews, Ambrose T., et al. (See Goulding, Albert P., assignor.)					
Matthews, Ambrose T., et al. (See Richardson, Frank A., assignor.)					
Matthews, Joshua S., Manchester, N. H. Machine for heading heel-seats	417,069	Dec. 10	1352	370	49 1646
Mattullath, Hugo, Detroit, Mich. Barrel-sheet truck	413,737	Oct. 22	3216	561	49 439
Matzeliger, Jan E., Lynn, Mass. Mechanism for distributing tacks, nails &c.	415,736	Nov. 26	2404	629	49 1227
Maurio, Robert, Donaldsonville, La. Plant cane-shaver	413,070	Oct. 15	1895	496	49 353
Mawson, John B., Philadelphia, Pa. Bobbin-holder for spindles of spinning-machines	411,926	Oct. 1	217	56	49 45
Maxim-Nordenfeli Guns and Ammunition Company. (See Nordenfeli, Thorsten, assignor.)					
Mason, Thomas, assignor of one-half to E. C. Boyer, Dayton, Ohio. Disk harrow and cultivator	417,572	Dec. 17	2137	569	49 1804

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
May, Horatio N., et al. (See Odell, John B., assignor.)						
May, James. (See Heath and May.)						
May, William L. (See Lowry, George A., assignor.)						
Mayall, Lewis A., assignor to Brown & Bailey, Philadelphia, Pa. Die for creasing paper, straw-board, &c.	416,115	Nov. 26	3006	782	49	1349
Mayer, Adolph, Chicago, Ill. Composition fuel	414,116	Oct. 29	3455		49	711
Mayer, Erhard L., and H. Liepmann, London, county of Middlesex, England. Treatment of porous pots for electric batteries	417,392	Dec. 17	1250		49	1750
Mayer, Erhard L., and H. Liepmann, London, county of Middlesex, England. Manufacture of porous pots for electric batteries	417,436	Dec. 17	1908		49	1762
Mayer, Jacob, et al. (See Feld and Siehrich, assignors.)						
Mayer, Leopold, Stuttgart, Wartenberg, Germany. Buckle	416,480	Dec. 3	482	131	49	1466
Mayer, Max, Munich, Bavaria, Germany. Calculating-machine	417,361	Dec. 17	1646	447	49	1713
Mayfield, James I., Kosciusko, Miss. Seed-planter	412,642	Oct. 8	1269	331	49	256
Mayo, Alice L., Great Falls, Mont. Ter. Hemming attachment for sewing-machines	414,914	Nov. 12	1123	221	49	967
Mayo, George D., Lynn, Mass. Feeding device for circular-knitting machines	414,865	Nov. 12	1044	270	49	932
Mayo, William A., assignor to F. A. Mabey and P. M. Chisum, Paris, Tex. Plunger-operating means for hay-presses	417,877	Dec. 24	2588	681	49	1900
Mayo, William S., New York, N. Y. Overload	418,579	Dec. 31	3680	961	49	1124
Mayo, William S., New York, N. Y. Water-closet	418,580	Dec. 31	3681	962	49	1124
McAdams, William M. L., South Boston, Mass. Paging-machine	416,372	Dec. 3	331	87	49	1434
McAdon, Thomas, assignor of one-half to G. Smith, Little Sioux, Iowa. Combined stalk-cutter and rake	418,030	Dec. 24	2851	731	49	1951
McAlister, R. Rosale, N. Y. Spoke-socket	417,741	Dec. 24	3385	628	49	1801
McAlister, Andrew J. (See McAlister, John, assignor.)						
McAlister, James, Eugene, Ill. Union for lead pipes	417,383	Dec. 17	1852	496	49	1750
McAlister, John, assignor of one-half to J. McAllister, Brooklyn, N. Y. Fire-fighter	418,579	Nov. 29	3673	751	49	1124
McAlpine, Robert, assignor to himself and W. Morgan, Trenton, N. J. Clothes-line prop.	418,378	Dec. 31	3509	879	49	2865
McAlpine, William W., Bolligee, Ala. Cotton-press	413,062	Oct. 15	1906	498	49	385
McArthur, Warren, Chicago, Ill., assignor to Steam Gauge and Lantern Company, Syracuse, and R. E. Dietz Company, New York, N. Y. Tubular lantern	412,286	Oct. 8	739	192	49	132
McArthur, Warren, Chicago, Ill., assignor to Steam Gauge and Lantern Company, Syracuse, and R. E. Dietz Company, New York, N. Y. Tubular lantern	412,287	Oct. 8	740	193	49	132
McAuley, Robert F., and H. B. Frisbie, assignors of one-third to W. J. White, Cleveland, Ohio. Heating-stove for railway-cars	414,653	Nov. 5	728	129	49	884
McBean, John C., assignor of three-fourths to A. Ross, S. J. Parker, and B. F. Blackall, Rochester, N. Y. Machine for attaching labels	413,787	Oct. 29	2902	772	49	601
McBride, John J. (See Cole and McBride.)						
McBride, Richard P., assignor of one-half to E. G. Layham, Canandaigua, N. Y. Car-coupling	413,201	Oct. 22	2090	546	49	429
McBride, Thomas, Philadelphia, Pa., and E. Fisher, Kincardine, Ontario, Canada. Device for excavating coal, &c.	412,524	Oct. 8	1087	284	49	230
McBride, Thomas, Philadelphia, Pa., and E. Fisher, Kincardine, Ontario, Canada. Apparatus for operating derricks or cranes	412,525	Oct. 8	1089	285	49	231
McBride, Thomas, Philadelphia, Pa., and E. Fisher, Kincardine, Ontario, Canada. Excavator	412,526	Oct. 8	1090	286	49	232
McBride, Thomas, Philadelphia, Pa., and E. Fisher, Kincardine, Ontario, Canada. Expandible wheel for endless carriers, &c.	412,527	Oct. 8	1091	286	49	232
McBurney, George W. (See Collins, Corneille, assignor.)						
McClaffey, John F., Red Bud, Ill. Wash-hoiler	412,650	Oct. 8	1284	335	49	229
McCahey, John, assignor to New England Bell Company, Providence, R. I. Machine for covering wires or cables	411,960	Oct. 1	184	47	49	38
McCall, Douglas B., Yarellton, Tex. Post-hole auger	412,837	Oct. 15	1596	414	49	323
McCardell, James, St. Petersburg, Fla. Money-change game	413,957	Oct. 29	3215	839	49	661
McCart, John G., Boston, Mass. Leather-cutting machine	417,268	Dec. 17	1656	449	49	1715
McCarthy, Louis, assignor to C. T. Lee, Boston, Mass., and Gould & Watson Company, of Massachusetts. Insulator	413,146	Oct. 15	2012	524	49	405
McCarthy, Thomas A., et al. (See Nickels, John, assignor.)						
McCarthy, William F. M., assignor of three-fourths to J. Logan, Hagerstown, Md., C. E. Eishon, Philadelphia, Pa., and H. D. Walbridge, Washington, D. C. Apparatus for the production of steel direct from the ore	414,654	Nov. 5	730	189	49	884
McCarthy, William F. M., Hagerstown, Md., assignor of part to S. C. Ashton and H. D. Walbridge, Washington, D. C. Casting armor-plates	415,173	Nov. 12	1533	394	49	1040
McCarthy, William F. M., Hagerstown, Md., assignor of part to W. H. Ashton and H. D. Walbridge, Washington, D. C. Molding armor-plates	415,174	Nov. 12	1534	395	49	1040
McCanal, William I., Temple, Tex. Washing-machine	417,832	Dec. 24	2525	665	49	1809
McClend, James R., et al. (See Just, Johann A., assignor.)						
McClend, James R., et al. (See Just, Johann A., assignor.)	411,997	Oct. 1	315	82	49	64
McClure, Jacob W., Memphis, Tenn. Churn-dasher	413,537	Oct. 22	2594	672	49	524
McConnell, Hugh. (See Chalk, Timothy C., assignor.)						
McConville, Daniel, et al. (See Cole, Thomas Z., assignor.)						
McConway, William, Pittsburg, Pa. Car-coupling	412,405	Oct. 8	913	239	49	185
McCool, William A. (See Culmer, John W., assignor.)						
McCormack, William, assignor of one-half to D. J. Birmingham, Philadelphia, Pa. Screen	413,302	Oct. 22	2100	546	49	429
McCormick Harvesting Machine Company. (See Primm, Henry E., assignor.)						
McCormick, F. L. F., et al. (See Just, Johann A., assignor.)						
McCormick, Charles E., assignor of one-half to W. A. Smith, Cleveland Ohio. Necktie fastener	411,871	Oct. 1	139	36	49	29
McCoy, Elijah, and C. B. Hodges, assignors to C. C. and H. C. Hodges, Detroit, Mich. Lubricator	418,130	Dec. 24	3001	786	49	1078
McCoy, Henry L., Elliptonville, N. Y. Portable heater	415,730	Nov. 26	2469	630	49	1228
McCreary, Alfred A. (See Lawrence, William B., assignor.)						
McCreedy, Franklin W. B., New York, N. Y. Rubber eraser	417,073	Dec. 10	1264	373	49	1649
McGullich, Gilbert. (See Stratton and McCulloch.)						
McGutchen, Chas. W., Peckskill, assignor to Finch & Co., New York, N. Y. Stove-grate	418,294	Dec. 31	3231	845	49	2033
McIntee, William J. (See Partridge and McEntee.)						
McDonald, Laura S., St. Helena, Cal. Easel	414,987	Nov. 12	1228	321	49	983
McDonald, Ronald E., and J. Cain, assignors to Fort Wayne Electric Light Company, Fort Wayne, Ind. Electric arc-lamp head-light	415,282	Nov. 19	1640	423	49	1069
McDonald, Theodore R., assignor of one-half to H. R. Botander, Marion, Ohio. Lawn-mower	414,842	Nov. 12	1007	261	49	946

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.
			Spec.	Draw.	
				Vol.	Page.
McDonnell, Vincent J., Philadelphia, Pa. Wrench.	413,183	Nov. 13	1544	397	40 1042
McDonough, Denis, Eau Claire, Wis. Trine-cutter.	413,216	Nov. 19	1291	409	40 1059
McDonald, William M., East Orange, N. J. Electric motor for railway-cars.	413,238	Oct. 8	1092	287	40 922
McDowell, Alexander H. (See Porter, Thaddeus, assignor.)					
McDowell, Jonas P., Fote, Iowa. Draft-equalizer.	414,432	Nov. 5	387	97	41 817
Melowell, Julia C., Canton, Ohio. Cabinet-stand for sick-rooms.	415,212	Dec. 31	3109	815	49 3019
McElhone, George W., assignor of one-half to W. D. Smith, Binghamton, N. Y. Printing-press.	414,809	Nov. 12	1050	971	49 953
McElhose, Thomas S., assignor of one-half to C. Kohlhaas, Paterson, N. J. Hydrant.	415,119	Nov. 12	1407	367	49 1023
McElroy Car Heating Company. (See McElroy, James F., assignor.)					
McElroy, Daniel S., New York, N. Y. Railway train-signal.	413,400	Oct. 22	2420	627	40 490
McElroy, Daniel S., New York, N. Y. Electro-magnetic railway-signal.	413,410	Oct. 22	2421	628	40 491
McElroy, Daniel S., New York, N. Y. Electro-magnet.	413,411	Oct. 22	2422	629	40 490
McElroy, Daniel S., New York, N. Y. Electrically-operated railway-switch.	413,412	Oct. 22	2423	629	40 491
McElroy, Daniel S., New York, N. Y. Trolley-car.	413,424	Oct. 22	2411	510	40 492
McElroy, James F., Lansing, Mich. Drain-valve.	413,651	Oct. 8	1284	339	49 259
McElroy, James F., assignor to McElroy Car Heating Company, Albany, N. Y. Water-heater.	414,157	Oct. 29	3519	916	49 724
McElroy, Lewis De Kalb, assignor of one-half to E. P. Edwards, Sterling, Ill. Railway-rail brace.	417,499	Dec. 17	2914	538	49 1752
McEntee, Patrick, Montgomery, Minn. Car-coupling.	413,727	Oct. 29	2877	740	50 500
McFarland, Andrew, Thomaston, Me. Rotary motor.	411,827	Oct. 1	77	21	49 18
McFee, Augustus M., assignor of one-half to V. F. Carpenter, Cleveland, Ohio. Heading-blank for bolts or rivets.	413,439	Nov. 12	1173	306	40 978
McGee, Patrick, Providence, R. I. Pressure-equalizer for gas-mains.	414,070	Oct. 29	3392	8-3	49 698
McGehe, William J., Boshnell, Ill. Rotary grinding-machine.	414,565	Nov. 5	500	129	49 857
McGeorge, Alvan D. (See Goldington and McGeorge.)					
McGowan, James S., Bergen Point, N. J., assignor to Standard Metal Tie and Construction Company of New Jersey. Rail-joint plate.	413,454	Oct. 29	2477	613	49 501
McGowan, Isaac S., Bergen Point, N. J., assignor to Standard Metal Tie and Construction Company of New Jersey. Metal tie-clamp.	414,778	Nov. 12	911	236	49 927
McGowan, Isaac S., Bergen Point, N. J., assignor to Standard Metal Tie and Construction Company of New Jersey. Clamp for railway-rails.	414,779	Nov. 12	912	236	49 927
McGill, George W. (See Baird, Joseph H., assignor.)					
McGill, George W. (See Shipley, Ralph J., assignor.)					
McGill, George W., Riverdale, N. Y. Fastener for envelopes.	414,071	Oct. 29	3303	889	49 698
McGill, George W., Riverdale, N. Y. Fastener for envelopes.	414,072	Oct. 29	3304	892	49 698
McGill, George W., Riverdale, N. Y. Fastener for envelopes, &c.	414,073	Oct. 29	3305	892	49 698
McGill, George W., Riverdale, N. Y. Suspending device.	414,074	Oct. 29	3306	893	49 698
McGill, John A., South Bend, Ind. Railway car or signal.	417,364	Nov. 17	1212	487	49 1723
McGill, William C., Washington, D. C. Cash indicator and register.	415,120	Nov. 12	1400	369	49 1028
McGinness, John A. (See George and McGinness.)					
McGloboon, Julia A., Kingston, Tenn. Sewing-cabinet.	411,901	Oct. 1	116	47	49 38
McGowan, Thomas, Cleveland, Ohio. Jacket for lamp-chimneys.	413,406	Oct. 8	913	239	49 185
McGregor, Charles, Nerepis, N. S. W. (See Ross, Charles, assignor.)					
McGruhr, John F., Taunton, Mass. Lever-screw for spinning-machines.	412,288	Oct. 8	741	193	49 153
McGraw, William, assignor to Appleton Manufacturing Company, Appleton, Wis. Four-horse evener.	414,433	Nov. 5	388	97	49 817
McGrew, William H., Peru, Ind. Fence-machine.	414,817	Nov. 12	966	250	49 936
McGuffin, John A. (See Chrisman, Joseph C., assignor.)					
McGwin, James, Fulton, Mo. Return steam-tramp.	412,213	Dec. 31	3110	815	49 2009
McIlhenny, James S., assignor of two-thirds to J. Irwin, Jr., and R. L. Middleton, Washington, D. C. Shoe for ladders.	412,199	Oct. 1	693	157	49 121
McIlhenny, Richard J., Wilmington, N. C. Telegraph-repeater.	415,417	Nov. 19	1299	494	49 1119
McIntire, Charles, Nerepis, N. S. W. (See Ross, Charles, assignor.)					
McIntire, Dewitt C., Salamanca, N. Y. Metallic vessel.	413,263	Oct. 29	2069	799	49 628
McIntire, John A., Mexico, Mo. Copy-holder.	415,550	Nov. 19	2132	354	49 1168
McIntire, Oliver K., Ogden, Kans., assignor of one-half to E. A. Reed, Springfield, Ohio. Pawl-and-ratchet mechanism.	417,369	Dec. 17	1678	449	49 1715
McKay, Alexander, Detroit, Mich. Flushing-valve for water-closets.	414,158	Oct. 29	3320	916	49 724
McKay, Andrew B. (See Drader and McKay.)					
McKeane, George, assignor of one-half to E. D. Barker and A. L. Chaplin, Cortland, N. Y. Adjustable bracket for curtains.	415,650	Nov. 19	2372	609	49 1205
McKague, John, and E. C. Gibson, Cleveland, Ohio. Card-holder.	415,393	Nov. 19	1460	454	49 1110
McKenzie, Hector F., assignor of one-half to G. F. Parody, Cheesaming, Mich. Oil-pump and measuring-tank.	416,735	Dec. 10	875	236	49 1550
McKinley, James B. (See Kinnard, McKinley, and Thaxton.)					
McKinley, James W., Oskaloosa, Iowa. Hand-pump and barrel attachment.	418,409	Dec. 31	3502	917	49 2088
McKinney, Harvey J., Patton, Pa. Churn.	415,054	Nov. 19	1325	345	49 1008
McLane, Hiran H. (See Hard and McLane.)					
McLane, Charles A., et al. (See Best and Underwood, assignors.)					
McLaughlin, James, Chicago, Ill. Hanging device for electric-arc lamps.	416,847	Oct. 10	1038	379	49 1521
McLaughlin, James F., Philadelphia, Pa. Switch-board.	413,083	Oct. 15	1908	499	49 3-6
McLean, Anthony, San Francisco, Cal. Carrying-pulley.	416,243	Oct. 10	1174	321	49 1610
McLendon, Thaddeus, San Francisco, Cal. Carrying-pulley.	414,435	Nov. 5	389	98	49 817
McLinden, Andrew. (See Frosdson and McLinden.)					
McMahon, James, assignor to D. C. & H. C. Reed & Co., Kalamazoo, Mich. Harrow-frame.	413,528	Oct. 22	2505	673	49 524
McMahon, John. (See Solon and McMahon.)					
McMahon, John P., Buffalo, N. Y., assignor to McMahon Thermograph Company, Jersey City, N. J. Amplifying-alarm.	416,483	Dec. 3	485	133	49 1407
McMahon, John W., Boston, Mass. Checkrein operative device.	415,681	Nov. 19	1333	609	49 1305
McMahon Thermograph Company. (See McMahon, John P., assignor.)					
McMann, William N., New York, N. Y. Trolley-car.	416,341	Dec. 3	979	73	49 1434
McMann, Leonard, Springfield, Mass. Bit-screw.	413,303	Oct. 22	2102	546	49 429
McMann, Harry N., et al. (See Jarrell, Edwin, assignor.)					
McMunn, James W., et al. (See Jarrell, Edwin, assignor.)					
McMurray, Robert T., Brooklyn, N. Y. Metallic fabric.	416,484	Dec. 3	484	134	49 1408
McNab, John, Lexington, Mass. Brick wall.	412,858	Oct. 15	1567	414	49 363
McNab, James, assignor to United States Chemical Company, Camden, N. J. Filtering.	412,780	Oct. 15	1473	386	49 336

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
McNab, James, assignor to United States Chemical Company, Camden, N. J. Furnace for calcining bone-black.	412,781	Oct. 15	1479	386	49	303
McNabb, Jehu B. (See Phelps and McNabb.)						
McNair, Lilburn G. (See Cherot, Joseph L., assignor.)						
McNeal, Charles, Mishawaka, assignor of one-half to E. Skillman, Goshen, Ind. Split pulley.	415,920	Nov. 26	3694	704	49	1296
McNeil, G. C. (See Prange, Herman H., assignor.)						
McNeil, George, Chicago, Ill. Lubricator.	418,214	Dec. 31	3114	816	49	2010
McNeil, Grant C., Akron, Ohio. Charging-barrow.	412,342	Oct. 8	236	216	49	168
McNeill, James, assignor of one-half to T. McNeill, Pittsburg, Pa. Tube cutter, expander, and header.	412,652	Oct. 8	1295	333	49	229
McNeil, Thomas. (See McNeill, James, assignor.)						
McNeil, William S., Bridgeport, Conn. Lock-hinge.	416,130	Nov. 26	3020	786	49	1332
McNeill, James S. and W. J. Shaw, Johnston Station, Ga. Implement for handling bar-reis, &c.	417,578	Dec. 17	2146	571	49	1806
McNitt, James H., Alameda, Cal. Water-heating attachment for gas-stoves.	417,191	Dec. 10	1551	423	49	1685
McOaker, Daniel J., Providence, R. I. Switch-operating device for street-cars.	413,453	Oct. 22	2478	643	49	502
McPhail, John, Liverpool, county of Lancaster, England. Spectacles.	416,425	Dec. 3	494	134	49	1469
McPherson, John W., Moline, Ill. Combined fork, pan, and stove-lid lifter.	416,736	Dec. 10	876	236	49	1551
McQueen, John, and W. Moore, Manchester, county of Lancaster, England. Nipper mechanism of combing-machines.	415,346	Nov. 19	1795	467	49	1099
McQuown, Thomas H., Biggsville, Ill. Skate.	414,915	Nov. 12	1124	292	49	968
McRae, William D. (See Milner and McRae.)						
McSweeney, John, Wilmington, Del. Attachment for type-writing machines.	412,114	Oct. 1	473	123	49	95
McTigue, Thomas J. (See Roney, Alexander B., assignor.)	415,418	Nov. 19	1903	494	49	1119
McVay, Daniel, assignor of one-half to W. F. Brewer, Louisville, Ky. Shaft-support.	411,828	Oct. 1	79	32	49	19
Mead, Isaac, Beloit, Wis. Threshing-machine.	415,639	Dec. 24	2833	747	49	1948
Meadows, William C., Moravia, Pa., N. C. Turbine water-wheel.	415,842	Nov. 26	2565	669	49	1238
Meadville Vise Company. (See Barrett, James O., assignor.)						
Meagher, John. (See Taylor, Kenner, assignor.)						
Mealand, Arthur J. (See Owsney, Frank X., assignor.)						
Meals, Andrew J., O'Neill, Neb. Ditching-machine.	416,934	Dec. 10	1161	317	49	1607
Meats, John T., assignor to Mason Machine Works, Taunton, Mass. Picking mechanism for looms.	414,652	Nov. 5	728	188	49	884
Meabe, Louis C., Elizabeth, N. J. Game-board.	417,302	Dec. 17	1648	417	49	1713
Mechanical Manufacturing Company. (See Wells, Thomas F., assignor.)						
Medart, Frederick, St. Louis, Mo. Parallel bars for gymnasiums.	412,772	Oct. 15	1469	383	49	301
Medart, Martin, Belleville, Ill., assignor to M. V. Medart, St. Louis, Mo. Parcel carrier or holder.	415,115	Nov. 12	1404	366	49	1025
Medart, Martin, Belleville, Ill., assignor of one-half to M. V. Medart, St. Louis, Mo. Parcel carrier or holder.	415,115	Nov. 12	1404	366	49	1025
Medart, Martin V., et al. (See Daniel, Thomas J., assignor.)						
Medart, Martin V. (See Medart, Martin, assignor.)	418,650	Dec. 31	3784	987	49	2144
Me, Gilbert. (See Rodgers and Me.)						
Meeker, Bolivar. (See Meeker, Lorenzo, assignor.)						
Meeker, Lorenzo, Chicago, Ill., assignor of one-half to B. Meeker, Detroit, Mich. Lifting-puck.	411,897	Oct. 1	179	46	49	36
Meeker, Walter C., Jersey City, N. J. Laundry-rod.	411,897	Oct. 1	135	35	49	28
Meerford, John J., Indianapolis, Ind. Lathe dust-trap.	413,096	Oct. 22	2702	702	49	546
Megow, Charles, assignor of one-half to J. L. Anderson, San Francisco, Cal. Adjustable wheel-sash.	416,004	Nov. 26	2812	737	49	1312
Mehling, John A. (See Ewert and Mehling.)						
Mehren, Jacob F., Chicago, Ill. Electric-current indicator.	414,866	Nov. 12	1646	270	49	953
Mehren, Jacob F., assignor of one-half to P. C. and W. H. Dyrenforth, Chicago, Ill. Key.	415,412	Nov. 19	1829	492	49	1117
Meigs, John G., et al. (See Conabee, William T. S., assignors.)						
Meisselbach, August F. and W. Newark, N. J. Fish-net.	412,773	Oct. 15	1470	384	49	301
Meisselbach, William. (See Meisselbach, August F. and W.)						
Meister, Wilhelm, Apolda, Saxe-Weimar-Eisenach, Germany. Plane.	415,918	Nov. 26	2670	708	49	1283
Melick, William B., assignor of one-third to A. Leslie, St. Louis, Mo. Clinometer.	416,863	Dec. 3	737	211	49	1028
Mellie, Lyman B., Copake Iron Works, assignor to himself, and J. M. Halsted, New York, N. Y. Automatic lamp-extinguisher.	412,929	Oct. 15	1691	441	49	342
Mellon, John S., assignor of six-tenths to G. W. Lewis, St. Louis, Mo. Electro-therapeutic appliance.	412,196	Oct. 1	599	156	49	120
Mellor, James, Patterson, N. Y. Terry-fabric.	418,206	Dec. 31	3101	814	49	3008
Melvin, David N., Lindenville, N. Y. Laundry-rod.	412,773	Oct. 15	1470	384	49	301
Menard, Joseph P., and E. T. Weyman, Missoula, Mont. Ter. Hand-truck.	414,425	Nov. 5	372	92	49	814
Menasha Wooden Ware Company. (See Bond, William E., assignor.)						
Menzies, Charles, Moran, Kans. Raves-trough hanger.	415,307	Dec. 31	3105	814	49	3008
Mendenhall, James E., Springfield, Ohio. Apparatus for manufacturing gas.	412,966	Oct. 15	1739	455	49	352
Mendenhall, John W., et al. (See King, James M., assignor.)						
Mendenhall Store Service Company. (See Mendenhall, William, assignor.)						
Mendenhall, William, assignor to Mendenhall Store Service Company, Cincinnati, Ohio. Store-service apparatus.	413,850	Oct. 29	3061	797	49	626
Mendenhall, William, assignor to Mendenhall Store Service Company, Cincinnati, Ohio. Store-service apparatus.	413,850	Oct. 29	3064	798	49	627
Meneffe, Franklin L., Aurelia, Iowa. Check-rod corn-planter and marker.	413,406	Oct. 22	2413	626	49	428
Meneffe, Franklin L., Aurelia, Iowa. Reel for check-rod corn-planters.	413,404	Nov. 19	1970	513	49	1135
Mensing, Louis C. H., Chelmsford, county of Essex, England. Button.	413,198	Oct. 22	2096	545	49	428
Menez, Anthony E., Minneapolis, assignor of two-fifths to J. H. Sonthall and W. Knan, St. Anthony Park, Minn. Insulating and waterproofing composition.	418,308	Dec. 31	3105	814	49	3008
Merchants Roll Paper Printer and Cutter Company. (See Wilson, Homer T., assignor.)						
Merchants Roll Paper Supply Company. (See Kennedy, Guy L., assignor.)						
Meredith, Edmund, Philadelphia, Pa., assignor to Pennsylvania Globe Gas Light Company, of Pennsylvania. Locomotive head-light.	416,116	Nov. 26	3007	783	49	1349
Mergounsky, Moses, New York, N. Y. Assignor to G. A. Buler, Philadelphia, Pa. Machine for cutting, creasing, and printing paper-box blanks.	417,830	Dec. 24	3223	664	49	1283
Meriam, Benjamin, Boston, Mass. Drain-testing apparatus.	417,810	Dec. 10	1572	436	49	1669
Meriam, Bronze Company. (See Miller, John C., assignor.)						
Merriman, Ralph, assignor of one-fourth to E. E. Wise, Chicago, Ill. Printing-surface.	416,174	Dec. 3	39	12, 13	49	1276
Merriman, Ralph, assignor of one-fourth to E. E. Wise, Chicago, Ill. Printing-surface.	417,736	Dec. 34	3778	626	49	1860
Merriman, Ralph, assignor of one-fourth to E. E. Wise, Chicago, Ill. Printing form or sheet.	417,737	Dec. 34	3260	627	49	1860
Merriman, Ralph, assignor of one-fourth to E. E. Wise, Chicago, Ill. Printing.	417,738	Dec. 24	3361	627	49	1860

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.			Official Gazette.
			Spec.	Dr. et	Vol.	Page.
Merralls, William A., Kansas City, Mo. Method of and apparatus for extracting gold	412,643	Oct. 8	1270	331 332	49	256
Merrill, Fredns R., and O. M. Thomas, Versailles, Ohio. Carriage-top	415,875	Nov. 26	2610	683 684	49	1268
Merrill, Galus L., Syracuse, N. Y. Chain-wheel casing	414,774	Nov. 12	904	234	49	926
Merrill, Edwin C., Albany, Pa. Thermotropic valve-regulator	412,920	Oct. 8	730	190	49	150
Merrill, Parker, St. Louis, Mich. Surface cattle-guard	412,967	Oct. 15	1740	455	49	352
Merrill, Parker, St. Louis, Mich. Cattle-guard	413,338	Oct. 22	2156	561	49	440
Merrill, Willis C., and C. E. Wingo, Baltimore, Md. Photographic apparatus for holding and exposing sensitive plates	417,263	Dec. 17	1649	447	49	1713
Merriman, Francis E., Boston, Mass. Bee-hive	413,239	Oct. 22	2157	562	49	440
Merriman, Francis E., Boston, Mass. Bee-feeder	416,935	Dec. 10	1163	318	49	1608
Merriman, Lemuel H., assignor of one-half to J. W. Hawkins, Carlinville, Ill. Washing-machine	418,040	Dec. 24	2834	748	49	1948
Merritt, James M., Marengo, assignor to Schreiber & Conchar Manufacturing Company, Dubuque, Iowa Wire-stretcher	416,005	Nov. 26	2813	738	49	1313
Morrow, Joseph M., Merrow, Conn. Forming a border on the edges of fabrics	413,077	Oct. 15	1406	496	49	353
Morrow, Joseph M., Merrow, Conn. Overseaming fabric	413,531	Oct. 23	2596	670	49	323
Morrow, Joseph M., Merrow, Conn. Crocheting or overseaming machine	413,761	Oct. 29	2923	761	49	599
Morrow, Joseph M., Merrow, Conn. Trimming or border for the edges of fabrics	414,235	Nov. 5	86	30	49	755
Morrow, Joseph M., Merrow, Conn. Finish for fabrics	414,236	Nov. 5	86	30	49	756
Morrow, Joseph M., Merrow, Conn. Hooked or threaded needle	415,310	Nov. 19	1739	452	49	1698
Morrow, Joseph M., Mansfield, Conn. Ornamenting the edges of fabrics	414,233	Nov. 5	82	19	49	754
Morrow, Joseph M., Mansfield, and W. H. Stedman, Norwich, Conn.; said Stedman assignor to said Morrow. Crocheting or overseaming machine	414,234	Nov. 5	84	20	49	754
Morrow, Joseph M., Mansfield, and W. H. Stedman, Norwich, Conn.; said Stedman assignor to said Morrow. Crocheting or overseaming machine	414,718	Nov. 12	830	216	49	911
Meserick, Charles S. (See Miner, William W., assignor.)						
Meske, Ernst, Chicago, Ill. Locomotive journal-box	414,982	Nov. 12	1234	319	49	987
Mesker & Brothers, Symonds, Herbert, assignor.						
Mesker, Frank, St. Louis, Mo. Shutter-fastener	417,064	Dec. 10	1353	371	49	1646
Messinger, George F., Tatamy, Pa. Corn-sheller	413,532	Oct. 22	2588	670	49	323
Messinger, Robert D., New York, assignor of one-half to J. Holler, Brooklyn, N. Y. Brake for hand-trucks	416,846	Dec. 10	1037	279	49	1581
Messner, George R. (See Kane, Frank H., assignor.)						
Mestern, Max, assignor to himself, V. de C. Hervillers, Turin, Italy, and T. Mestern, Munich, Germany. Ventilating apparatus	411,898	Oct. 1	180	46, 47	49	37
Meatren, Theresa, et al. (See Mestern, Max, assignor.)						
Metallic Railway Tie Company. (See Durand, Arthur, assignor.)						
Metz, Nelson D., Hudson, Iowa. Seeder and planter	417,930	Dec. 24	2671	704	49	1917
Metzger, Ludwig, New York, N. Y. Pneumatic engine	417,493	Dec. 17	2006	535	49	1781
Metzger, Henry W., New York, N. Y. Pneumatic engine	414,719	Nov. 12	833	216	49	912
Metzner, Adolph, Hamilton, Ohio. Tile	412,399	Oct. 8	904	236 237	49	183
Meyenberg, Franz P., Chicago, Ill. Brick-kiln						
Meyer, Anton H. (See Klapperstach, Albert, assignor.)						
Meyer, Frederick A., Brooklyn, N. Y., assignor, by mesne assignments, to Composite Cell Company, of New Jersey. Sectional mold	413,251	Nov. 19	1639	423	49	1069
Meyer, Frederick W. (See Fye, William H., assignor.)						
Meyer, Hermann H. B., Brooklyn, assignor of one-half to F. W. Floyd, New York, N. Y. Indicator-valve	412,644	Oct. 8	1276	332	49	257
Meyer, Jacques, Paris, France. Device to prevent horses from cribbing	417,878	Dec. 24	2589	682	49	1000
Meyer, John W., Davenport, Iowa. Machine for mixing beverages	416,636	Dec. 3	747	197	49	1515
Meyer, Louis M., New York, N. Y. Box-finishing machine	414,426	Nov. 5	773	92	49	814
Meyer, Theodore S., New York, N. Y. Tip or head of billiard-cues	414,775	Nov. 12	905	234	49	926
Meyer, William C. (See French and Meyer.)						
Meyers, Frank B., assignor to B. H. Elwood, Fort Plain, and W. T. Djefendorf, Brooklyn, N. Y., trustees. Hydrocarbon-burner	416,413	Dec. 3	389	104	49	1447
Meyrowitz, Emil B., Ridgely, N. J., assignor to Levy, Dreyfus & Co., New York, N. Y. Open-glass holder	412,774	Oct. 15	1472	384	49	362
Miant, George W., Brooklyn, N. Y. Magnetic toy	417,931	Dec. 24	2673	704	49	1917
Michel, Carl, Grenchen, assignor to E. Zetter, Solothurn, Switzerland. Address-holder for umbrellas, sticks, &c.	415,116	Nov. 12	1404	367	49	1025
Michel, Pierre, Jr. (See Campbell and Harrison, assignors.)						
Michels, Michel, Chicago, Ill. Feed-trough attachment	413,392	Nov. 19	1859	484	49	1110
Michigan Radiator and Iron Manufacturing Company. (See Taylor, Harrison H., assignor.)						
Middleton, Henry C. (See Fieh, Samuel H., assignor.)						
Middelboe, Christian G. (See Nordenfiet and Middelboe.)						
Middleton, Robert L. et al. (See McIlhenny, James S., assignor.)						
Middley, George W. (See Harbaugh and Middley.)						
Midgley, Sam, Lexington, Mass. Cut-off relay-tapping machines	414,815	Nov. 12	963	259	49	938
Miguel, James P., and F. E. Gladwin, San Francisco, Cal. Type-writer drop-cabinet	414,943	Nov. 12	1325	319	49	988
Milam, Benjamin C., Frankfort, Ky. Window-sash	416,481	Dec. 3	483	132	49	1466
Milde, Robert, Chicago, Ill. Construction of houses	416,795	Dec. 10	958	259	49	1566
Miltenberger, Charles, New York, N. Y. Making compressed yeast	412,968	Oct. 15	1741	455	49	353
Miles, Jackson B., assignor of two-thirds to W. H. Groves and C. S. Hollinshead, Lincoln, Ga. Loggerhead for hames	416,684	Dec. 3	798	218	49	1528
Miles, Myron, assignor of two-thirds to J. D. and C. Hagerman, Oxford, Mich. Car-door opener and closer	412,197	Oct. 1	600	156	49	130
Miller, Charles A., and W. D. McRae, Deseronto, Ontario, Canada. Hand tacking implement	416,415	Dec. 3	392	105	49	1448
Miller, Aaron D., Evansville, Ind. Safe-alarm	415,413	Nov. 19	1869	492	49	1117
Miller, Alexander, New York, N. Y. Elevator-bucket	412,775	Oct. 15	1473	384	49	362
Miller, Benjamin M. (See Kesch and Miller.)						
Miller Brothers & Mitchell. (See Dwinell, David L., assignor.)						
Miller, Charles A., assignor to W. M. Baker, Urbana, Ohio. Machine for making egg-case fillers	414,427	Nov. 5	775	93	49	815
Miller, Christian, New York, N. Y. Folding baby-carriage	415,528	Dec. 31	3664	940	49	2110
Miller & Company, Edward. (See Homan, William C., assignor.)						
Miller & Company, Edward. (See Rhind, Frank, assignor.)						
Miller, Emma J. (See Barrell, Joseph, assignor.)						
Miller, Ernest, Thomaston, Conn. Sandpapering-machine	413,786	Oct. 29	2960	772	49	606

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	De. & C.	Vol.	Page.
Miller, Ferdinand, Covington, Ky. Cake or cracker box.....	416,414	Dec. 3	391	104	49	1447
Miller, Florence S., Hoopston, Ill. Dish-washer.....	414,562	Nov. 5	580	151	49	856
Miller, Francis H., et al. (See Fischer, Ernest J., assignor.)						
Miller, Frank, et al. (See Finch, John M., assignor.)						
Miller, Frank, assignor to Avery Stamping Company, Cleveland, Ohio. Sheet-metal rod, &c.	413,953	Oct. 29	3309	838	49	659
Miller, Frederick, Johnston, and G. Gregory, Braddock, Pa.; said Miller assignor to said Gregory. Car-brake.....	412,520	Oct. 8	1083	283	49	219
Miller, Fredrick C., Newport, Ky. Cigar-hunching machine.....	416,065	Nov. 26	2910	759	49	1331
Miller, Fredrick C., Newport, Ky. Friction-clutch.....	416,067	Nov. 26	2920	761	49	1333
Miller, Fredrick C., Newport, Ky. Cigar-hunching machine.....	416,117	Nov. 26	3008	783 784 785 786	49	1349
Miller, Fredrick C., Covington, Ky. Cigar-hunching machine.....	416,066	Nov. 26	2916	761	49	1332
Miller, Frederick W., and J. J. Newman, assignors to Globe Tissue Paper Company, Elkhart, Ind. Paper-waterproofing machine.....	413,280	Oct. 22	2237	581	49	456
Miller, George H. (See Nieslander, Allen O., assignor.)						
Miller, George W., Woonsocket, R. I. Machine for pressing fabrics.....	412,776	Oct. 15	1474	385	49	304
Miller, George W., Woonsocket, R. I. Machine for pressing cloth.....	413,200	Oct. 22	2184	569 570	49	445
Miller, George W., Woonsocket, R. I. Cloth-stretching roll.....	417,264	Dec. 17	1651	448	49	1714
Miller, Gustavus A., Butler, Pa. Combination step-ladder.....	416,175	Dec. 3	41	11	49	1377
Miller, Horace G., Mount Vernon, Iowa. Lawn-mower.....	412,970	Oct. 15	1743	455	49	333
Miller, Ira M., Akron, Ohio. Endless elevator or carrier apron.....	417,065	Dec. 10	1354	371	49	1647
Miller, Isaac N., Boston, Mass. Sofa-bed.....	411,960	Oct. 1	273	70	49	105
Miller, James, assignor of one-half to A. L. Thompson, Detroit, Mich. Leaf-turner.....	415,051	Nov. 12	1321	344 345	49	567
Miller, James K., Emporia, Kans. Combined pulley-hock and belaying-pin.....	411,868	Oct. 1	136	35	49	29
Miller, James T., Atlanta, Ga. Spring-motor.....	413,954	Oct. 29	3210	838	49	629
Miller, John. (See Hawes, Robert, assignor.)						
Miller, John C., Ickesburg, Pa. Protractor.....	418,415	Dec. 31	3422	894	49	2072
Miller, John C., assignor to Meriden Bronze Company, Meriden, Conn. Wick-raiser for central-draft lamps.....	414,948	Nov. 12	1171	305	49	977
Miller, John F., Monaca, Ind. Gait-wearer.....	417,494	Dec. 17	3007	536	49	1761
Miller, John J., Chicago, Ill. Car-starter.....	415,737	Nov. 26	3046	629	49	1327
Miller, John P. (See Sleeper and Miller.)						
Miller, John W., assignor of two-sevenths to E. A. Durst, Newton Falls, Ohio. Well-drilling machine.....	413,407	Oct. 22	2417	627	49	489
Miller, Joseph, Olean, N. Y. Lamp-extinguishing apparatus.....	412,969	Oct. 15	1742	455	49	353
Miller, Justus L., Paulding, Ohio, assignor to St. Joseph Manufacturing Company, Mishawaka, Ind. Plow.....	416,269	Dec. 3	174	47	49	1402
Miller, Lewis. (See Dmngardner, Joseph, assignor.)						
Miller, Lewis. (See Ellinwood, Augustus E., assignor.)						
Miller, Lewis, Akron, Ohio. Harvester-reel.....	411,280	Oct. 1	65	12	49	16
Miller, Lewis, Akron, Ohio. Grain-hinder.....	411,821	Oct. 1	67	15	49	16
Miller, Lewis, Akron, Ohio. Grain-shocking attachment for harvesters.....	414,776	Nov. 12	307	234 235	49	926
Miller, Maurice M., Law's Hill, Miss. Cotton-planter.....	413,199	Oct. 22	2097	545	49	428
Miller, Oliver D. (See Bishop and Miller.)						
Miller, S. Samuel, et al. (See Chassagne, Paul J., assignor.)						
Miller, Truman W. (See Harris, Malcolm L., assignor.)						
Miller, Walter P., Denver, Colo. Scale for type-writing machines.....	412,521	Oct. 8	1084	283	49	220
Miller, William A., Springdale, Ark. Whitetree.....	417,573	Dec. 17	2138	570	49	1804
Miller, William A., Council Grove, Kans., and S. J. Gompers, New York, N. Y. Case-holding bracket for composing-stands.....	415,052	Nov. 12	1393	345	49	1007
Miller, William H., Chelsea, Mass. Mop.....	411,222	Oct. 1	70	19	49	17
Miller, William S., Meyersdale, Pa. Dust-conveyer.....	416,836	Dec. 10	1165	318	49	1608
Milligan, John C., Brooklyn, N. Y., assignor to Lalanc & Grosjean Manufacturing Company, New York, N. Y. Hanging wash-stand.....	413,200	Oct. 22	2008	546	49	428
Milliken, Annie E., Chicago, Ill. Folding chair.....	412,440	Oct. 8	906	227	49	184
Milliken, George F., Boston, Mass. Fire-alarm box.....	412,971	Oct. 15	1744	456	49	353
Millot, Ambroise, Zurich, Switzerland. Grinding-mill.....	416,371	Dec. 3	330	86	49	1434
Mills, George W., Elizabeth, N. J., and J. Morphet, Brooklyn, N. Y. Combined crayon-sharpener, eraser, and weight.....	412,401	Oct. 8	907	227	49	184
Mills, Mortimer H., Chicago, Ill. Mc. Permuter.....	418,339	Dec. 31	3375	856	49	2043
Mills, William B., Mills Spring, N. C. Mole-trap.....	415,728	Nov. 26	3407	629	49	1327
Millsapugh, Andreas P., Bridgeport, Conn. Wagon-jack.....	411,927	Oct. 1	218	56	49	45
Milne, Alexander. (See Benfield, Annanner, and Milne.)						
Milne, John, Croydon, England. Vibration-sworder.....	415,465	Nov. 19	1951	514	49	1135
Milovanovitch-Koka, Kosta R., Vienna, Austria-Hungary. Magazine fire-arm.....	413,078	Oct. 15	1297	496 497	49	384
Milovanovitch-Koka, Kosta R., Vienna, Austria-Hungary. Fire-arm.....	413,079	Oct. 15	1901	497	49	385
Miner, William M., Baltimore, Md. House-powder.....	415,215	Nov. 19	1589	409	49	1050
Miner, George B., assignor of one-half to O. W. Fritsch, Mount Gilead, Ohio. Vehicle-spring.....	412,645	Oct. 8	1277	332	49	357
Miner, Henry C., Stafford, N. Y. Starch-box.....	417,825	Dec. 17	1652	448	49	1714
Miner, James H., Baton Rouge, La. Saw-mill dog.....	416,557	Dec. 10	1166	319	49	1606
Miner, William W., assignor of one-half to C. S. Mersick, New Haven, Conn. Manufacture of horseshoe-nails.....	415,818	Nov. 26	2330	660	49	1222
Miner, William W., assignor of one-half to C. S. Mersick, New Haven, Conn. Horseshoe-nail.....	417,066	Dec. 10	1356	371	49	1447
Minich, Simon B., Landisville, Pa. Lifting and compressing device.....	416,733	Dec. 10	872	235	49	1500
Minot, John D. (See Robinson and Miner.)						
Mink, Fritz, assignor to Keystone Watch Case Company, Philadelphia, Pa. Watch-case.....	415,678	Nov. 19	2329	608	49	1304
Minneapolis Electric Muffin Company. (See Gooden, George A., assignor.)						
Minnich, Simon B., assignor to J. M. Greider, Landisville, Pa. Device for overcoming dead-centers.....	414,984	Nov. 12	1326	330	49	988
Minnick, James A., Elwood, Ind. Fence-machine.....	415,843	Nov. 26	2566	609 670	49	1258
Minshall, Frank W., Marietta, Ohio. Process of and apparatus for distilling and desulphurizing hydrocarbon oil.....	415,876	Nov. 26	2611	684	49	1268
Mischke, Karl, New York, N. Y. Screw-cutting tool.....	417,574	Dec. 17	2139	570	49	1805

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.
			Spec.	Dr. &c.	Vol. Page.
Misener, Harvey E. (See Woods, Arsen F., assignor.)					
Mitchell, Adin W., Dayton, Ohio. Combined soap and work holder.	416,176	Dec. 3	43	13	49 1377
Mitchell, Alfred W., et al. (See Taylor and Lightfoot, assignors.)					
Mitchell, Benjamin F. (See Davenport and Mitchell.)					
Mitchell, Cyrus M., Nashua, and G. E. Small, Hudson, N. H. Fire-escape	411,869	Oct. 1	136	35	49 299
Mitchell, Frederick, Yonkers, N. Y. Sign	418,972	Oct. 15	1745	456	49 353
Mitchell, George, and T. Hargreaves, Bradford, county of York, England. Spindle-driving device for spinning-machines	416,177	Dec. 3	44	14	49 1378
Mitchell, George S. (See Heard and Mitchell.)					
Mitchell, James, Des Moines, Iowa. Contact-trolley for electric-railway cars	413,287	Oct. 22	2939	581	49 456
Mitchell, James H., Philadelphia, Pa. Diaphragm-die for plastic molding	413,453	Oct. 22	2476	643	49 301
Mitchell, John, et al. (See Channess, James A., assignor.)					
Mitchell, John, assignor to Clark's Coking and Smokeless Furnace Company, Rochester, N. Y. Furnace	415,679	Nov. 19	2330	608	49 1904
Mitchell, John E. (See Sherman, George P., assignor.)	415,546	Nov. 19	2118	551	49 1164
Mitchell, Joseph L. (See Johnson and Mitchell.)					
Mitchell, Nathaniel C., Philadelphia, Pa. Magnetic rubber-stock cleaner	418,041	Dec. 24	2835	748	49 1949
Mitchell, Nathaniel C., Philadelphia, Pa. Conveying device for rubber stock	418,042	Dec. 24	2837	748	49 1949
Mitchell, Nathaniel C., Philadelphia, Pa. Yessel or tank for deffierizing rubber stock	418,043	Dec. 24	2838	749	49 1949
Mitchell, Nathaniel C., Philadelphia, Pa. Restoring rubber	418,044	Dec. 24	2839	749	49 1950
Mitchell, Nathaniel C., Philadelphia, Pa. Rubber-beating mill	418,045	Dec. 24	2841	749	49 1950
Mitchell, Truman A. (See Hayland and Mitchell.)					
Mitchell, William H., Bentonville, Ark. Extension-ladder	418,046	Dec. 24	2842	749	49 1950
Mitton, Charles S., Boston, Mass. Fan attachment for rocking-chairs	417,007	Dec. 10	1356	372	49 1647
Moats, Andrew T., assignor to Black Diamond Mining Tool Company, Pleasantville, Iowa. Miner's grip or bracket for supporting coal-drilling machines	418,592	Oct. 8	1096	973	49 920
Moats, Ortus E., assignor to P. C. Austin, Chicago, Ill. Road-scraper	418,636	Oct. 1	371	95, 96	49 75
Moe, Leonidas L., Denver, Colo. Hay press	418,416	Dec. 3	395	105	49 1448
Moeller, Herman D., Muscatine County, Iowa. Draft-equalizer	418,529	Dec. 31	3606	941	49 2110
Moeller, William, Chicago, Ill. Fireman's ladder	414,237	Nov. 5	90	21	49 756
Moennich, Paul, Gehlsdorf, near Rostock, Mecklenburg-Schwerin, Germany. Induction telemeter	416,006	Nov. 26	2815	738	49 1313
Moerle, Joseph, Philadelphia, Pa. Beverage preparation	418,581	Dec. 31	3692	928	49 2124
Moffatt Electric Construction Company. (See Moffatt, Richard R., assignor.)					
Moffatt, Richard R., New York, N. Y., assignor to Moffatt Electric Construction Company, of New York. Electro-magnetic separator	411,899	Oct. 1	183	47	49 37
Moffett, Joseph K., assignor to J. B. Wise, Watertown, N. Y. Drawer-pull	414,867	Nov. 12	1647	970	49 953
Mohlmeier, Carl, Dunning, Ill. Ventilator	419,973	Oct. 15	1746	456	49 353
Mohr, Vincent, Chicago, Ill. Corn planter	411,823	Oct. 1	70	19	49 17
Mohs, Julius, assignor to Wolf Brothers, Philadelphia, Pa. Apparatus for making paper boxes	413,533	Oct. 22	2501	671	49 523
Mohun, John L., Washington, D. C. Drawing-board	414,067	Oct. 22	2509	671	49 523
Moldenhauer, Otto R., and C. Poock, Dayton, Ohio. Arch-brick	418,909	Dec. 31	3106	814	49 1699
Moler, George S., New York, N. Y. Photographic camera	416,938	Dec. 10	1168	319	49 1609
Moline Paper Company. (See Lindgren, August, assignor.)					
Mollison, James S. (See Roberts and Mollison.)					
Molloy, Edmond, Philadelphia, Pa. Hot-air-distributing furnace	416,734	Dec. 10	874	936	49 1550
Monahan, John P., Detroit, Mich. Gasoline-vapor burner	412,921	Oct. 8	733	190	49 151
Moncion, Michel, Ogdenburg, N. Y. Freezer or refrigerator	416,417	Dec. 3	386	105	49 1448
Mond, Ludwig, and G. Eschellmann, assignors to Brunner, Mond & Co. (limited), New York, county of Chester, England. Obtaining chlorine	416,038	Nov. 26	2872	928	49 1384
Mond, Ludwig, Northwich, county of Chester, and C. Langer, South Hampstead, county of Middlesex, England. Obtaining hydrogen gas	417,068	Dec. 10	1357	372	49 1647
Monday, Robert, assignor to W. Ginnuth, J. M. Moore, A. F. Baker, Lampasas, and J. M. Borroughs, Austin, Tex. Sheep-shearing machine	415,365	Nov. 19	1829	474	49 1103
Monfort, Charles R., New York, N. Y. Feed-bag	417,437	Dec. 17	1909	510	49 1782
Monroe, Charles F., Meriden, Conn. Coffee or tea pot	416,178	Dec. 3	45	14	49 1378
Monsanto, Mauricio M., Hoboken, N. J., assignor to E. E. Fellowes, New York, N. Y. Hydrocarbon-burner	418,582	Dec. 31	3692	928	49 2124
Montagne, Robert H. D. S., et al. (See Purdy, William J., assignor.)					
Montagne, Alfred L., Rochester, N. Y. Churn	414,338	Nov. 5	91	21	49 756
Montagne, Thomas E., West Lorne, Ontario, Canada. Machine for bending vehicle-shafts	415,919	Nov. 26	3680	702, 703	49 1283
Montgomery Manufacturing Company. (See Strugis, Samuel, assignor.)					
Moodie, Ellanau L., New York, assignor to himself and R. Gair, Brooklyn, N. Y. Toilet-paper safe	416,340	Dec. 3	277	73	49 1424
Moody, Charles D., et al. (See Irvine, John B., assignor.)					
Moody, Isaac E., Toledo, Ohio. Making hollow metallic handles	412,777	Oct. 15	1475	383	49 302
Moody, James M., and S. B. Harwich, Mass. Railway-rail joint	414,339	Nov. 5	92	21	49 76
Moody, Sidney B., New York, N. Y. Stock-car					
Moon, George R., Wilmington, Ohio. Heat-equalizer for ovens	415,649	Nov. 19	2283	595	49 1105
Moorecroft, John. (See Littler, Haslam, and Moorecroft.)					
Moore, Charles F., Gillett, Pa. Automatic vehicle-brake	418,210	Dec. 31	3107	815	49 2008
Moore, Charles H., Yorkers, N. Y. Bath-tub, wash-basin, or sink	418,375	Dec. 31	3365	878	49 2059
Moore, Charles M., et al. (See Wilkinson, Great, assignor.)					
Moore, Chrysanthus, St. Mary's, Mo. Means for closing the mouths of fruit or other jars	415,278	Nov. 19	1681	436	49 1077
Moore, Edward M., Jr. (See Andrews, Henry C., assignor.)					
Moore, Edward W., Milwaukee, Wis. Door-hanger	418,530	Dec. 31	3606	941	49 2110
Moore, George T., et al. (See Cook, Joshua P., assignor.)					
Moore, Gilpin, Rock Island, Ill. Plow	418,468	Dec. 31	3501	916	49 2068
Moore, J. Milt., et al. (See Monday, Robert, assignor.)					
Moore, James J., Merryville, La. Shell	412,856	Oct. 15	1586	413	49 322
Moore, John, East New Durham, assignor to E. A. Thoutot, Union, and J. Darling, West New York, N. J. Sink, &c., made of cement	413,861	Oct. 29	3066	799	49 627
Moore, Joseph A., Boston, Mass. Safety device for elevators	417,495	Dec. 17	3066	530	49 1751
Moore, Joshua, Marcelles, Ill. Machine for making plumbers' and gas-fitters' hooks	412,282	Oct. 8	734	191	49 151
Moore, Martin D., Yakima, Wash. Stock-car	415,878	Nov. 26	2616	685	49 1209
Moore, Patrick J., San Francisco, Cal. Oil-cup	416,939	Dec. 10	1168	319	49 1609
Moore, Robert B., Field's Store, Tex. Cut-off valve	412,111	Oct. 1	471	122	49 55
Moore, Samuel, assignor of one-half to C. D. Reynolds, Providence, R. I. Machine for ornamenting wire	413,025	Oct. 22	2737	707	49 951
Moore, Stephen F., Milwaukee, Wis. Carving-machine	418,416	Dec. 31	3422	894	49 2072

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. ^d	Vol.	Page.
Moore, Theophilus W., Fruit Cove, Fla. Machine for wrapping oranges	414,428	Nov. 5	376	93, 94	49	815
Moore, Thomas B. (See Gallagher and Moore.)						
Moore, Thomas W., Plainfield, N. J. Vestibule-car	417,496	Dec. 17	2009	537	49	1781
Moore, Webster P., Chicago, Ill. Seal-roller	418,363	Dec. 31	3684	962	49	2125
Moore, William R., et al. (See Ogilvie, Thomas J., assignor.)						
Moorehouse, James, Clyde, Kans. Chute for deboning cattle	414,068	Oct. 29	3389	881	49	697
Moore, Walter. (See McQueen and Moore.)						
Moore, Morris, Chicago, Ill. Clasp and tag	416,796	Dec. 10	959	260	49	1566
Morawetz & Co. (See Fisher, Charles, assignor.)						
Morrell, James F., Camden, N. J. Journal box and bearing	415,547	Nov. 19	2119	551	49	1164
Morerton, Francis. (See Loughton, William, assignor.)						
Morerton, Francis, London, England. Electro-medical battery	415,345	Nov. 19	1794	466	49	1099
Morfaux, Jules. (See Mathieu and Morfaux.)						
Morgan, Charles H. (See Jansson, Gustaf, assignor.)						
Morgan, Charles H., Worcester, Mass. Making wire	412,283	Oct. 8	735	191	49	151
Morgan, Charles H., Worcester, Mass. Heating-furnace for rolling-mill plants	416,067	Nov. 26	2816	734	49	1313
Morgan, Charles H., Worcester, Mass. Reeling mechanism for wire-rod rolling mills	416,940	Dec. 10	1168	319	49	1069
Morgan, Charles H., Worcester, Mass. Reel for reeling wire rods	416,941	Dec. 10	1170	320	49	1069
Morgan Envelope Company. (See Johnson, Charles C., assignor.)						
Morgan, Frank E. (See Lane, Frederic A., assignor.)						
Morgan, Frank E., assignor to New Haven Clock Company, New Haven, Conn. Electric indicator	414,868	Nov. 12	1048	{ 270 271 }	49	353
Morgan, Hubert W. (See Morgan, James T. and H. W.)						
Morgan, James T. and H. W., Winsted, Conn. Pencil-sharpener	412,376	Dec. 31	3367	878	49	2069
Morgan, Jesse D., Ventura, Cal. Agricultural machine	416,179	Dec. 3	46	14	49	1378
Morgan, John J., Needham, and A. Davies, Chelsea, Mass., said Davies assignor to said Morgan.	417,069	Dec. 10	1338	372	49	1648
Morgan, Kelly & Co. (See Brown, Edward M., assignor.)						
Morgan, Lewis C., assignor of one-half to V. J. Piero, Canton, Ohio. Steam-engine governor	414,816	Nov. 12	965	250	49	938
Morgan Rail Joint Company. (See Morgan, Richard P., assignor.)						
Morgan, Richard P., assignor to Morgan Rail Joint Company, Dwight, Ill. Railway-rail joint	417,739	Dec. 24	2383	627	49	1861
Morgan, Robert A., Jr., Boston, Mass. Combined support and safety device for overhead conductors	417,497	Dec. 17	2011	537	49	1782
Morgan, William. (See McAlpine, Robert, assignor.)						
Morrison, Donald R., Hartlepool, county of Durham, England. Self-lubricating piston	414,777	Nov. 12	910	235	49	927
Morrison, George. (See Crall, Henry W., assignor.)						
Morley, Joseph D., assignor to himself, R. W. Scott, and L. N. D. Williams, Philadelphia, Pa. Trimming for the edges of fabrics	413,935	Oct. 29	3213	839	49	660
Morley, Joseph D., assignor to himself, R. W. Scott, and L. N. D. Williams, Philadelphia, Pa. Making trimmings for the edges of fabrics	415,974	Nov. 26	2773	725	49	1304
Morley, Martin H., Rochester, N. Y. Car-heater	412,284	Oct. 8	737	{ 191 192 }	49	152
Morphett, James. (See Mills and Morphett.)						
Morrill, Henry L., assignor by mesne assignments, to International Manufacturing Association, New York, N. Y. Cantilevering device	417,575	Dec. 17	2140	{ 570 571 }	49	1805
Morrill, Richard B., Philadelphia, Pa. Satin-faced fabric	412,534	Oct. 22	2592	879	49	324
Morrill, William N., and C. A. Eddy, Waterloo, N. Y. Wagon-body	412,778	Oct. 15	1476	365	49	302
Morrill, William N., and C. A. Eddy, Waterloo, N. Y. Vehicle-body	412,779	Oct. 15	1477	385	49	304
Morrill, Charles F., Boston, Mass. Wash-case	412,947	Oct. 24	2248	750	49	1950
Morrill, Marshall J. (See Angell, Thomas, assignor.)						
Morris, Charles A., Bloomfield, and R. G. Packard, Morristown, N. J. Removing mud, &c.	411,828	Oct. 1	219	36, 57	49	45
Morris, John, London, England. Artificial fuel	417,362	Dec. 17	1811	527	49	1742
Morris, John H. and T. D. Seward, Neb. Permutation-lock	414,985	Nov. 12	1227	380	49	988
Morris, John T., and B. S. Cool, Medora, Iowa. Portable stanchion	413,660	Oct. 15	1903	497	49	385
Morris, Richard, Blackheath, county of Kent, England. Filter	417,070	Dec. 10	1360	372	49	1648
Morris, Thomas D. (See Morris, John H. and T. D.)						
Morris, Wyatt H. (See Walker, William B., assignor.)						
Morrison, Dow, St. Paul, Minn. Straw burning, heating, and cooking stove	414,563	Nov. 5	588	{ 151 152 }	49	857
Morrison, John G., Brooklyn, N. Y. Sink-lack	417,266	Dec. 17	1654	446	49	1714
Morrison, Lewis E., Brooklyn, N. Y. Fire-escape	414,429	Nov. 5	578	94	49	815
Morrison, William, Toronto, Ontario, Canada. Fire-escape	415,053	Nov. 12	1324	345	49	1008
Morriasey, Timothy, and J. Doyle, assignors to Ionia Steam Hand Car Company, Ionia, Mich. Car-wheel	416,637	Dec. 3	729	197	49	1515
Morrow, Joseph N., and A. N. Heine, Evansville, Ind. Gang-edger for cutting dimension lumber	412,646	Oct. 8	1278	{ 333 334 }	49	857
Morrow, Thomas T., Caro, Mich. Snap-hook	412,112	Oct. 1	71	123	49	95
Morrow, William, and W. Symington, Kansas City, Kans. Combined water cooler and filter	415,366	Nov. 19	1822	474	49	1163
Morrow, William L. (See Churchill, Enos, assignor.)						
Morse, David R., et al. (See Solano, Renaldo, assignor.)						
Morse, Everett F., Ithaca, N. Y. Vehicle gear and spring	415,414	Nov. 19	1891	{ 492 493 }	49	1117
Morse, Everett F., Trumansburg, N. Y. Vehicle-spring	415,415	Nov. 19	1895	483	49	1118
Morse, Everett F., Trumansburg, N. Y. Fifth-wheel for vehicles	416,638	Dec. 3	730	198	49	1515
Morse, Everett F., Trumansburg, N. Y. Two-wheeled vehicle	417,367	Dec. 17	1655	449	49	1714
Morse, James W., Chicago, Ill. Package for tooth-powder	417,362	Dec. 24	2674	705	49	1917
Morse, John H., Evanston, Ill. Safety-gate	417,740	Dec. 24	2385	{ 627 628 }	49	1861
Morse, Joseph E., assignor to Washburn & Moen Manufacturing Company, Worcester, Mass. Bale-tie machine	414,430	Nov. 5	579	{ 94 95 }	49	816
Morse, Leonard W., Mystic River, Conn. Mechanical movement	414,564	Nov. 5	590	122	49	857
Morse, Mark A., New Orleans, La. Car-brake or dead-block	417,390	Dec. 17	1747	471	49	1732
Morse, Marcellus A. (See Springer and Morse.)						
Morse, Orville M., assignor of one-half to J. G. Mundy, Jackson, Mich. Puzzle	412,647	Oct. 8	1281	334	49	858
Morse, Orville M., assignor to Knickerbocker Company, Jackson, Mich. Grain-cleaner	414,431	Nov. 5	585	97	49	817
Morse, William E., Chicago, Ill. Letter-opener	414,886	Nov. 12	1084	378	49	959
Morse, Williams & Co. (See Enoch, Charles S., assignor.)						
Mortman, John A., and E. H. Higby, Mapleton, Kans. Vehicle-wheel	415,117	Nov. 12	1405	367	49	1025
Mortimer, Roland. (See Descalzo and Mortimer.)						
Morton, Quinn. (See Mouch, Andrew B., assignor.)						
Morton, Quinn, Rochester, W. Va. File-holder	416,298	Dec. 3	219	57	49	1411
Morton, Thomas O., Brooklyn, assignor of one-half to W. B. Blackwell, New York, N. Y. Fan	411,996	Oct. 1	315	82	49	64

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Morwitz, Joseph. (See Frieot, Henry C., assignor.)						
Moseley, Joseph, Manchester, county of Lancaster, England. Foundation for cards	415,118	Nov. 12	1406	367	49	1025
Moody, Benjamin L., et al. (See Vinton, Archibald C., assignor.)						
Moder, George D., assignor to Birmingham Plate Company, Birmingham, Conn. Plane	413,300	Oct. 22	2258	587	49	459
Mosier, Moses. (See King, Phineas F., assignor.)						
Mosman, Charles F., Meriden, Conn. Envelope and stamp moistener	418,211	Dec. 31	3108	815	49	2009
Mott, E. Hicks, Oneida, N. Y. Hand-cart	418,339	Dec. 31	3309	865	49	2049
Mott Iron Works, J. L. (See Reid, John, assignor.)						
Motter, Harry L., York, Pa. Puzzle	414,966	Nov. 12	1228	320	49	984
Mottlinger, George H., Dell Rapids, Dak. Ter. Thill-coupling	412,648	Oct. 8	1282	334	49	248
Monat, Laurence Jr., Chicago, Ill. Transom-lifter	413,327	Oct. 22	2297	597	49	467
Monck, Andrew B., assignor of one-half to C. A. Morton, Fargo, N. D. Car-door	418,295	Dec. 31	3230	845	49	2032
Monlton, James N., Haverhill, Mass., assignor, by mesne assignments, to Moulton Turned Shoe Machine Company. Sole	416,118	Nov. 26	3015	785	49	1351
Moulton Turned Shoe Machine Company. (See Moulton, James N., assignor.)						
Monnte, James H. (See Cohn and Mounts.)						
Mouradian, Mihran, Manchester, county of Lancaster, England. Apparatus for withdrawing a thread from woven cloth for the purpose of testing it	415,367	Nov. 19	1824	475	49	1103
Mower, Edward B., assignor to Douglas Brothers & Mower, Cedar Rapids, Iowa. Rolled fly	412,523	Oct. 8	1086	—	49	230
Mowers, George W. (See Mowers, Martin L. and G. W.)						
Mowers, Martin L. and G. W., Lucas, Ohio. Post or pile driving machine	412,974	Oct. 15	1747	456	49	354
Moxham, Arthur J., Johnstown, Pa. Adjustable clamp-joint for railway-rails	413,936	Oct. 29	3214	839	49	660
Moyer, Charles W. (See Florer and Moyer.)						
Moyer, Jacob S., Bethlehem, Pa. School-slate	413,288	Oct. 22	2240	581	49	456
Mozier, Albert M., Galion, Ohio. Operating railway-train orders, &c.	412,961	Oct. 22	2196	570	49	446
Maeller, Philip, Decatur, Ill. Cock	418,377	Dec. 31	3368	878	49	2060
Mulford, Charles K., York, Pa. Chocolate-pot	411,870	Oct. 1	138	35, 36	49	299
Mulford, Harry K. (See Smith and Mulford.)						
Mulford, Ichabod H., East Orange, assignor of one-half to G. M. Ballard, Newark, N. J. Sash-holder	412,285	Oct. 8	738	192	49	152
Müller, August, Brooklyn, N. Y. Scaffold	411,844	Oct. 1	73	30	49	17
Müller Automatic Liquid Metre Manufacturing Company. (See Müller, John P., assignor.)						
Müller, George M., Newburg, N. Y. Cut-off for engines	416,482	Dec. 3	484	132	49	1427
Müller, Henry Jr., New York, and M. A. Cumming, Brooklyn, assignors to Jordan-Mills Manufacturing Company, New York, N. Y. Sanding apparatus for railway-cars	412,402	Oct. 8	968	238	49	124
Müller, Jean N., New Orleans, La. Portable furnace	416,062	Nov. 26	2921	761	49	1333
Müller, John P., assignor to Müller Automatic Liquid Metre Manufacturing Company, Brooklyn, N. Y. Measuring-vessel for liquids	417,576	Dec. 17	2145	571	49	1406
Müller, Peter J., Cologne, Germany. Card-board box	412,649	Oct. 8	1283	335	49	229
Muller, William B. (See Bennett and Muller.)						
Müllers, Antoine, et al. (See Engelen, Antoine J., assignor.)						
Mullins, Fenton P. F., Philadelphia, Pa. Blank book	416,639	Dec. 3	731	198	49	514
Mullins, George G., Los Angeles, Cal. Mixture for refining copper and its alloys	413,335	Oct. 22	2293	—	49	1546
Mullins, George G., Los Angeles, Cal. Mixture for refining copper and its alloys	413,536	Oct. 22	2304	—	49	324
Mullins, John W., London, Ky. Washing-machine	412,403	Oct. 8	910	238	49	184
Mulrooney, John. (See Kallisher and Mulrooney.)						
Mumford, Joseph A., Hantsport, Nova Scotia, Canada. Shingle-sawing machine	411,825	Oct. 1	73	30	49	17
Mumford, Joseph A., Hantsport, Nova Scotia, Canada. Barrel-head-sawing machine	417,071	Dec. 10	1361	373	49	1048
Mumm, John F. A., Dayton, Ky. Explosive compound	417,577	Dec. 17	2145	—	49	1806
Munday, Mark, et al. (See Brown, Perry, assignor.)						
Mundy, John G. (See Morse, Orelle M., assignor.)						
Munger, Ernest A., assignor to G. E. Swan, Beaver Dam, Wis. Boot or shoe heel	413,862	Oct. 29	3068	799	49	627
Munger, Ernest A., and J. S. Rowell, Beaver Dam, Wis. Horseshoe	413,408	Oct. 22	2418	697	49	490
Munnell, Thomas, Carthage, Ohio. Cash-register	416,119	Nov. 26	3016	785	49	1351
Munsell, Albert H., Boston, Mass. Artist's easel	417,831	Dec. 24	2324	964	49	1888
Munst, Elieha. (See Fisher and Munsell.)						
Muston, James, Maywood, assignor to himself and C. H. Ferry, Chicago, Ill. Tire-rolling mill	416,797	Dec. 10	960	360	49	1566
Muston, James, Maywood, assignor to himself and C. H. Ferry, Chicago, Ill. Rolling tires	416,798	Dec. 10	963	361	49	1567
Munz, Charles W. (See Williams and Munz.)						
Murbarger, William E., Indianapolis, Ind. Anti-rattle spring for thill-couplings	417,072	Dec. 10	1363	373	49	1049
Murdoch, Charles F., assignor to Automatic Car Coupler Heating Company, Detroit, Mich. Pipe-coupler	412,128	Oct. 1	602	156	49	1621
Murdoch, Charles F., Detroit, Mich., assignor to Automatic Car Coupler Heating Company, of Michigan. Pipe-coupling	416,230	Dec. 3	113	32	49	1391
Murphy, Daniel H., Hartford, Conn. Cuspoid	417,363	Dec. 17	1811	486	49	1742
Murphy, P. C., et al. (See Breed, George N., assignor.)						
Murphy, Peter H., East St. Louis, Ill. Car roof	414,069	Oct. 29	3380	861	49	697
Murphy, Robert S., et al. (See Smith, George A., assignor.)						
Murphy, Thomas, and J. W. Broadhead, Providence, R. I. Shuttle-motion for looms	415,879	Nov. 26	2617	685	49	1269
Murphy, Thomas M., St. Louis, Mo. Sprinkler	418,048	Dec. 24	2846	750	49	1950
Murphy, William, New York, N. Y. Surge-reliever	412,115	Oct. 1	472	129	49	95
Murphy, Zachariah W., Harrison, Ark. Millstone feeder and cooler	417,498	Dec. 17	2014	537	49	1782
Murray, Edward F., et al. (See Walsh, John W., assignor.)						
Murray Iron Works Company. (See Stallman, Granville H., assignor.)						
Murray, Joseph J., Indianapolis, Ind. Signal-lantern	413,081	Oct. 15	1905	498	49	285
Murray, Peter, Jr., Newark, N. J. Power-fan	411,826	Oct. 1	75	21	49	19
Murray, Peter, Jr., Newark, N. J. Power-fan	412,404	Oct. 8	911	239	49	185
Murray, Walter C. (See Willis, Ed L., assignor.)						
Murray, William, New York, N. Y. Surge-reliever	418,584	Dec. 31	3685	963	49	2125
Muskegon Chemical Fire Engine Company. (See Van Valkenburg, Randall T., assignor.)						
Muter, Danbar D., et al. (See Conisloe, William T. S., assignor.)						
Muther, Lorenz, assignor to Union Special Sewing Machine Company, Chicago, Ill. Needle-clamp for sewing-machines	415,046	Dec. 24	2849	750	49	1951
Myer, William F., Indianapolis, Ind. Signal-lantern	416,799	Dec. 10	964	361	49	1567
Myers, Jacob, Eureka, Cal. Suspender-buckle	416,942	Dec. 10	1173	320	49	1610
Myers, Jacob H., Rochester, N. Y. Voting-machine	415,548	Nov. 19	2120	532	49	1164
Myers, Jacob H., Rochester, N. Y. Voting-machine	415,549	Nov. 19	2127	553	49	1166

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Myers, Lewis Y., Canton, Ohio. Hay-dock.	415,729	Nov. 26	3408	629	49	1228
Myers Manufacturing Company, D. O. (See Julian, William H., assignor.)						
Myers, Martha A. E., Albia, Kans. Straw-burning stove.	417,879	Dec. 24	2589	682	49	1906
Myers, Samuel, Boston, Mass. Clasp for waistband loops.	415,416	Nov. 19	1899	493	49	1119
Nachtlich, John P., Cleveland, Ohio. Hose-coupling.	411,829	Oct. 1	80	22	49	19
Nail, John E., Berryton, Kans. Horse-detaching device.	415,440	Oct. 22	2159	562	49	440
Napay, Hosca. (See Chadbourne, Zehulun L., assignor.)						
Napoles, Pedro, Napa, Cal. Distilling apparatus.	412,407	Oct. 8	914	239	49	185
Nash, Lewis H., South Norwalk, Conn., assignor to National Meter Company, New York.	418,417	Dec. 31	3424	240	49	2073
N. Y. Gas-engine.				896		
Nash, Lewis H., South Norwalk, Conn., assignor to National Meter Company, New York.	418,418	Dec. 31	3429	896	49	2073
N. Y. Ignitor for gas-engines.						
Nash, Pontalba L., Hollister, Cal. Overdraw bridle attachment.	418,419	Dec. 31	3432	897	49	2074
Nason, Walter L., Chicago, Ill. Fire-plug and grate.	413,829	Oct. 29	3021	726	49	617
Nathan, Paul, assignor to himself and H. J. Brewer, New York, N. Y. Adjustable gage.	418,915	Dec. 31	3117	816	49	2010
National Cash Register Company. (See Boyer, Israel D., assignor.)	416,737	Dec. 10	877	257	49	1531
National Cash Register Company. (See Grimes, Charles D., assignor.)						
National Cash Register Company. (See Patterson, John H., assignor.)						
National Cash Register Company. (See Patterson and Grimes, assignors.)						
National Cash Register Company. (See Patterson, Grimes, and Rensch, assignors.)						
National Machine Company. (See Osterhout, James A., assignor.)						
National Meter Company. (See Nash, Lewis H., assignor.)						
National Self Heating Soil Iron Company. (See Heidel, Gustavos, assignor.)						
National Surface Guard Company. (See Hall, James T., assignor.)						
National Tube Works Company. (See Patterson, Peter, assignor.)						
National Tube Works Company. (See Shelton, Thomas, assignor.)						
Natural Gas Fuel Company. (See Cornell, Elijah B., assignor.)						
Nauman, William H., Dayton, Ohio. Disk harrow.	413,539	Oct. 22	2396	672 673	49	534
Naylor, Charles E., San Francisco, Cal. Means for operating advertising devices for show- windows.	416,848	Dec. 10	1040	280	49	1582
Naylor, Joseph P. (See Simmons and Naylor.)						
Naylor, William, deceased, Albion, Ill.; E. Craig administrator. Mechanical telephone.	412,653	Oct. 8	1288	336	49	960
Neal, James, and C. F. Bolser, Amesbury, Mass. Two-wheeled vehicle.	414,117	Oct. 29	3456	898	49	711
Neal, W. F., et al. (See Clapp and Low, assignors.)						
Neale, Arthur H., Pittsburg, Pa. Hand帕 and towel.	416,849	Dec. 10	1040	280	49	1582
Neff, Albert A., Hill Grove, Ohio. Washing-machine.	417,673	Dec. 17	2289	600	49	1834
Nelsson, Lambert, New York, N. Y. Egg-beater.	414,566	Nov. 5	591	152	49	857
Nelson, Clark B., assignor of one-half to J. H. Watson, Crawfordsville, Ind. Metallic crest- tile.	417,270	Dec. 17	1659	450	49	1715
Nelson, George H. (See Bence, George W., assignor.)						
Nelson, Robert W., Hartford, Conn. Type-distributing machine.	417,074	Dec. 10	1365	373 374	49	1649
Nelson, Samuel. (See Scott and Nelson.)						
Nelson, Walton, assignor of one-half to F. W. Baumer, Wheeling, W. Va. Attachment for straps.	414,916	Nov. 12	1125	292	49	968
Nelson, Wilfred, New York, N. Y. Signal-lantern.	416,850	Dec. 10	1041	280	49	1582
Nelsonville Foundry and Machine Company. (See Jennings, Ebenezer S., assignor.)						
Nesbitt, Thomas M., Nesbitt, S. C. Grain-toller.	413,084	Oct. 15	1910	499	49	368
Nessle, John P., Newark, N. J. Candlestick.	414,917	Nov. 12	1126	293	49	968
Nessle, John P., Newark, N. J. Hydraulic candlestick.	416,418	Dec. 3	397	105 106	49	1448
Nettleton, Luther M., Burlington, Colo. Grinding-mill.	418,693	Dec. 31	3740	978	49	2137
Neu, Gustave S., New York, N. Y. Electric motion-controller.	412,529	Oct. 8	1094	287	49	923
Neu, Gustave S., New York, N. Y. Electric signal-controller.	412,530	Oct. 8	1095	287	49	923
Neukirch, Friedrich, Bremen, Germany. Solidification of loose ground for foundations, &c.	416,180	Dec. 3	47	14	49	1378
Nevens, F. W., et al. (See Carpenter, Charles E., assignor.)						
Neville, Asa G., Lazenbyville, W. Va. Glass-furnace.	416,008	Nov. 26	2818	738 739	49	1314
New Departure Bell Company. (See Rockwell, Albert F., assignor.)						
New England Bitt Company. (See McCahey, John, assignor.)						
New England Telephone and Telegraph Company. (See Farham, Isalah H., assignor.)						
New Haven Clock Company. (See Armstrong, Charles G., assignor.)						
New Haven Clock Company. (See Morgan, Frank E., assignor.)						
New Haven Nail Company. (See Sanford, Hopkins A., assignor.)						
New York and New Haven Automatic Sprinkler Company. (See Simmons and Hepburn, assignors.)						
New York Brass Company. (See Baker and Green, assignors.)						
Newark District Telegraph Company. (See Speicher, John, assignor.)						
Newberg, John W., Brooklyn, N. Y. Steam vacuum-dredger.	417,993	Dec. 24	2675	705	49	1917
Newbold, John D. (See Huston, Charles L., assignor.)						
Newcomb, Albert C., assignor of one-half to S. W. Bowles, Springfield, Mass. Filtering and clarifying water.	413,408	Oct. 8	916	240	49	186
Newell, George F., assignor to S. Frost, Newton, and F. L. Ferguson, Byfield, Mass. Pipe- wrench.	411,872	Oct. 1	140	36	49	29
Newland, George F., Detroit, Mich. Game.	416,331	Dec. 3	113	32, 33	49	1391
Newman, John J. (See Miller and Newman.)						
Newman, Moses, and G. H. Bennett, New York, N. Y. Coin-operated toy.	413,304	Oct. 22	2104	547	49	430
Newman, Nelson, Springfield, Ill. Lock for railway-switches.	411,998	Oct. 1	316	82	49	84
Newman, Nelson, Springfield, Ill. Electric gas-lighter.	417,198	Dec. 10	1552	432	49	1695
Newman, Nelson, assignor of two-thirds to G. A. Sanders and S. J. Willett, Springfield, Ill. Electric gas-lighter.	417,075	Dec. 10	1368	374	49	1649
Newman, William H. H., et al. (See Colever, William H., assignor.)						
Newton, Andrew C., Crescent, N. Y. Elevator.	418,051	Dec. 24	2852	751	49	1952
Newton, Horace E. (See Thompson and Newton.)						
Newton, Horace E., Greeley Center, N. Y. Car-door lock.	416,456	Dec. 3	485	134	49	1469
Newton, John M., Norwich, Conn. Shuttle-planer.	412,930	Oct. 15	1692	441	49	512
Newton, Robert, et al. (See Bacon, William S., assignor.)						
Newton, Robert W., Providence, R. I. Game apparatus.	414,989	Nov. 12	1230	321	49	989
Nichols, Ambrose J., New Market, N. H. Ring-spinning frame.	415,419	Nov. 19	1904	495	49	1120

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Nichols, Emory I., assignor to Nichols Manufacturing Company, San Francisco, Cal. Rotary steam-pump.....	413,830	Oct. 29	3022	787	49	618
Nichols, Emory I., assignor to Nichols Manufacturing Company, San Francisco, Cal. Fruit-pitting machine.....	413,831	Oct. 29	3023	787	49	618
Nichols, Emory I., assignor to Nichols Manufacturing Company, San Francisco, Cal. Lifting-jack.....	413,864	Oct. 29	3070	800	49	628
Nichols, Frederic A., Cambridgeborough, Pa., assignor to F. H. Snow, Garrettsville, Ohio. Clothes-drier.....	416,685	Dec. 3	799	218	49	1528
Nichols Manufacturing Company. (See Nichols, Emory I., assignor.)						
Nichols, Marion L., New York, N. Y. Harvester-frame and means for raising and lowering the same.....	414,159	Oct. 29	3522	916 917	49	734
Nichols, Marion L., New York, N. Y. Reel for harvesting-machines.....	414,160	Oct. 29	3525	918	49	725
Nichols, Marion L., New York, N. Y. Tucker for grain-blinders.....	414,161	Oct. 29	3527	919	49	725
Nichols, Marion L., New York, N. Y. Butt rake and evener for grain-blinders.....	414,162	Oct. 29	3528	919	49	725
Nichols, Marion L., New York, N. Y. Grain-saving attachment for grain-blinders.....	414,163	Oct. 29	3529	919 920	49	736
Nichols, Marion L., New York, N. Y. Harvesting-machine.....	414,164	Oct. 29	3530	920 921	49	736
Nichols, Marion L., New York, N. Y. Harvesting-machine.....	414,165	Oct. 29	3532	922	49	736
Nichols, Michael B., New York, N. Y. Trap.....	415,281	Nov. 30	2625	704	49	1246
Nichols, John, assignor of one-half to F. C. Cordes, H. M. Batt, T. A. McCarthy, D. N. Hatfield, Milwaukee, F. W. Wood, Racine, and D. P. Sanford, Madison, Wis. Lamp-burner.....	413,540	Oct. 22	3259	673	49	525
Nickerson, David H., Detroit, Mich. Elevator attachment.....	414,166	Oct. 29	3533	932	49	727
Nickerson, Hiram B., New Bedford, assignor to G. W. Eldridge, Vineyard Haven, Mass. Cleat for boats.....	416,487	Dec. 3	406	135	49	1469
Nicoll, Henry, assignor to Boston Brass and Tile Company, Boston, Mass. Revolvable grate.....	413,636	Oct. 22	2729	707	49	552
Niedlander, Allen O., assignor of one-half to G. H. Miller, Indianapolis, Ind. Car-coupling.....	415,731	Nov. 26	2411	630	49	1228
Niedinghaus, Alexander, St. Louis, Mo. Water-hoist.....	416,640	Dec. 3	733	198	49	1516
Nielsen, Christian, Atlantic, Iowa. Cover for cooking vessels.....	413,627	Oct. 22	2729	707	49	552
Niemann, Henry, assignor of one-half to F. L. Roßling, Denver, Colo. Car-coupling.....	411,830	Oct. 1	60	92	49	19
Nightingale Floor Company. (See Cantwell, Thomas, assignor.)	414,118	Oct. 29	3457	898	49	711
Nimschke, Louis W., New York, N. Y. Molding-block for the manufacture of brushes.....	413,788	Oct. 29	2965	773	49	607
Nix, James L., Homer City, Pa. Thermostat.....	412,115	Oct. 1	474	134	49	95
Noack, David G., Cincinnati, Ohio. Gage-cocks.....	412,890	Oct. 15	1633	436	49	331
Noble, Andrew, assignor to W. G. Armstrong, Mitchell & Co., (limited), Newcastle-upon-Tyne, England. Carriage or mounting for quick-firing guns.....	413,341	Oct. 22	2161	563	49	440
Noble, Eldridge H., assignor of one-half to J. W. Ward, Postville, Iowa. Mop-wringer.....	418,585	Dec. 31	3086	963	49	2125
Noble, George H. (See Wilcox and Noble.)						
Noble, James, Jr. (See Ring, Elkanah, assignor.)						
Noble, Lewis C., Boston, assignor to J. Wilson, Cambridge, Mass. Automatic perfume-distributing device.....	415,650	Nov. 19	2584	596	49	1195
Noe, Marsh, Davenport, Iowa. Hame-fastener.....	412,943	Oct. 8	827	216	49	168
Nolan, Peter, and J. Anderson, Rochester, assignors of one-third to W. Purcell, Fairport, N. Y. Apparatus for distributing lighting-fluids to lamps.....	416,232	Dec. 3	115	33	49	1291
Nolty, Henry, Jr., Lancaster, Pa. Fifth-wheel for vehicles.....	413,289	Oct. 22	2241	589	49	457
Noof, John V., and G. M. Ryder, Gravenese, N. Y. Shaft-support.....	414,435	Nov. 5	390	98	49	818
Norcrosa, Linnaeus B., assignor of part to J. R. Jones and F. H. Gunkel, Minneapolis, Minn. Coin-operated liquid-releasing device.....	416,121	Nov. 26	3020	786	49	1352
Norcrosa, Orlando W., Worcester, Mass. Fire-proof floor.....	417,500	Dec. 17	2016	538	49	1722
Norcrosa, William M., assignor to Corright Metal Roofing Company, Philadelphia, Pa. Metal shingle or roofing-plate.....	416,851	Dec. 10	1042	280	49	1582
Nordenfolt, Thorsten, assignor to Maxim Nordenfolt Guns and Ammunition Company, (limited), Westminster, England. Electric firing mechanism for breech-loading guns.....	411,831	Oct. 1	61	23	49	19
Nordenfolt, Thorsten, Westminster, England, and C. G. Middelboe, Copenhagen, Denmark. Naval range-finder.....	414,819	Nov. 12	970	251	49	939
Norman, Thomas L., West Point, Ga. Barrel.....	412,975	Oct. 15	1749	457	49	354
Norris, Thomas V., Rockford, Ill. Air-brake.....	413,305	Oct. 22	2104	547	49	430
Norriah, A. S., et al. (See Dawson, James, assignor.)						
North, Albert L., and H. Howe, Patriot, Ind. Barrel-head holder.....	418,420	Dec. 31	3436	898	49	2075
North Branch Steel Company. (See Thomas, Harry W., assignor.)						
North & Company, O. B. (See Smith, Charles H., assignor.)						
Northcutt, Shedrach D., Los Angeles, Cal. Carrier-truck cable curve.....	415,551	Nov. 19	2133	554	49	1167
Northrop, Henry H., Chicago, Ill. Shifting action for pianos.....	416,800	Dec. 10	965	202	49	1568
Norton, Andrew G., Arroyo Grande, Cal. Windmill.....	415,531	Oct. 31	3607	941	49	2111
Norton, Edwin, et al. (See Hodgson, John G., assignor.)						
Norton, Harold P., Washington, D. C. Basket strainer for bilge-water.....	414,340	Nov. 3	93	21, 22	49	757
Norton, Henry L., Ukiah, and F. W. Cook, San Francisco, Cal. Watchman's electric time-detector.....	417,501	Dec. 17	2017	538	49	1723
Norton, James M., Westfield, N. Y. Evaporating apparatus.....	414,436	Nov. 5	391	98, 99	49	818
Norton, John F., et al. (See Floyd, Byron B., assignor.)						
Norton, Oliver W., et al. (See Hodgson, John G., assignor.)						
Noth, Henry. (See Noth, John and H.)						
Noth, John and H., Davenport, Iowa. Malting-machine.....	412,752	Oct. 15	1421	38.	49	303
Nouvelet, Edmond, Wignehies, France. Apparatus for removing burrs and thistles from wool and similar fibers.....	412,331	Oct. 8	1096	258	49	923
Nover, Conrad, Westfield, N. Y. Cultivator.....	412,654	Oct. 8	1269	337	49	800
Noxon, Townsend W., St. Louis, Mo. Clasp.....	413,301	Oct. 22	2259	597	49	400
Noyes & Co., Joseph P. (See Noyes, Joseph P., assignor.)						
Noyes, Joseph P., assignor to J. P. Noyes & Co., Binghamton, N. Y. Dressing-comb.....	413,678	Oct. 29	3212	732	49	577
Noyes, La Y., assignor to W. Deering, Chicago, Ill. Grain-harvester.....	414,241	Nov. 5	85	22, 23	49	757
Noyes, Lewis W., East Pepperell, Mass. Machine for drying paper.....	413,726	Oct. 29	2678	750	49	1516
Nussey, George H., and W. B. Leachman, Leeds, England. Machine for tentering, pressing, and finishing woolen or other fabrics.....	416,641	Dec. 3	734	198 300	49	800
Nutting, Luther M., assignor of one-half to H. W. Hayden, Concord, N. H. Bush-hammer.....	412,332	Oct. 8	1097	258	49	923

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	De't.	Vol.	Page.
Nutting, Samuel E., assignor to T. Charles, Chicago, Ill. Slate-ruling machine.	415,651	Dec. 31	3785	967	49	2144
Nye, Albert M. (See Conklin, Calvin W., assignor.)						
Nye, Anselm T., Jr., and H. B., Cleveland, Ohio. Weighing-scales.	414,949	Nov. 5	100	93, 24	49	758
Nye, George E., assignor of one-half to E. Tredekk, Philadelphia, Pa. Circular-knitting machine.	412,655	Oct. 8	1290	337	49	260
Nye, George E., assignor of one-half to E. Tredekk, Philadelphia, Pa. Cam-adjusting mechanism for circular-knitting machines.	416,488	Dec. 3	498	135	49	1469
Nye, Harold B. (See Nye, Anselm T., Jr., and H. B.)						
O'Brien, Edward J., Texarkana, Ark. Cotton-seed linter.	413,413	Oct. 22	2424	629	49	491
O'Brien, John P., Quebec, Quebec, Canada. Telephone-address index and advertising device.	413,371	Oct. 22	2370	613	49	479
O'Brien, John P., Quebec, Quebec, assignor to G. H. Patterson and J. W. Allison, Montreal, Canada. Station indicator.	413,958	Oct. 29	3216	839	49	661
O'Brien, Thomas, New York, N. Y. Bicycle.	413,414	Oct. 22	2425	630	49	491
O'Brien, Thomas, New York, N. Y. Bicycle.	413,415	Oct. 22	2426	630	49	492
O'Connell, Joseph J., Chicago, Ill. Telephone-exchange apparatus.	417,271	Dec. 17	1659	450	49	1715
O'Connor, James L., New York, N. Y. Flame-fastener.	416,852	Dec. 10	1043	281	49	1583
O'Dwyer, Patrick F., assignor of one-half to A. M. Goodale, Waltham, Mass. Shaft-support.	415,143	Nov. 12	1519	391	49	1038
O'Hara, Daniel, administrator. (See Word, Charles V.)						
O'Hara, Joseph S., Grand Rapids, Mich. Overhoe.	415,923	Nov. 26	3696	705	49	1287
O'Keefe, Andrew, New York, N. Y. Lock.	416,181	Dec. 3	48	15	49	1378
O'Keefe, Andrew, New York, N. Y., assignor, by mesne assignments, to P. & F. Corbin, New Britain, Conn. Lock.	414,720	Nov. 19	834	216	49	912
O'Keefe, John, Omaha, Nebr. Carrying apparatus.	412,976	Oct. 15	1750	457	49	354
O'Leary, John A., Decatur, Mich. Dipper-handle machine.	412,929	Oct. 8	742	193	49	153
O'Marra, Patrick, Kingston, N. Y. Temporary binder.	416,373	Dec. 3	332	87	49	1434
O'Neill, Henry G., Louisville, Ky., assignor to Standard Recorder Company, of New York. Calculating, recording, and numbering machine.	413,302	Oct. 22	2260	528	49	460
O'Neill, Lawrence, assignor to A. C. Brooks, J. Shatts, and J. T. Andrews, 3d, Penn Yan, N. Y. Paper-machine.	412,656	Oct. 8	1291	337	49	260
O'Reilly, Charles P., et al. (See Hastings, Emory B., assignor.)						
O'Rourke, George. (See Vogel, Charles, assignor.)						
O'Shaughnessy, Patrick F. (See Sprague and O'Shaughnessy.)						
O'Toole, Richard. (See Loy and O'Toole.)						
Obergh, John H., Titusville, Pa. Blackboard.	413,679	Oct. 29	2912	732	49	577
Oberholzer, Howard C., Wadsworth, Ohio. Polishing-machine.	415,121	Nov. 12	1414	369	49	1027
Oermann, August W., Pittsburg, Pa. Cooking utensil.	412,216	Dec. 31	3118	817	49	2010
Odell, John B., assignor of two-thirds to J. N. May and N. S. Jones, Chicago, Ill. Type-setting machine.	418,321	Dec. 31	3282	857	49	3043
Office Specialty Manufacturing Company. (See Jewell, Major R., assignor.)						
Ogilvy, George H., New York, N. Y. Projectile.	414,989	Nov. 12	1231	321	49	969
Ogle, Thomas J., assignor of two-thirds to W. B. Moore and M. H. Bentley, Chicago, Ill. Hydrocarbon vaporizer and burner.	412,300	Oct. 1	605	157	49	121
Ohio Lake Company. (See Little, Peter E., assignor.)						
Olds, Henry G. (See Andersen, Peter, assignor.)						
Olds, Henry G., Fort Wayne, Ind. Vehicle-seat loop.	416,009	Nov. 26	3619	739	49	1314
Olin, Edwin D., Portsmouth, Ohio. Spring-forming machine.	417,272	Dec. 17	1664	451	49	1716
Olin, Fred C., assignor of one-half to Danforth & Clark, Buffalo, N. Y. Steam-pump.	415,955	Nov. 12	1335	346	49	1408
Olin, William F., Chicago, Ill. Grain-harvester.	415,279	Nov. 19	1662	436	49	1077
Olliphant, Norman D., Meade, Kans. Washing-machine.	412,583	Oct. 8	1028	288	49	224
Olliphant, William, Jersey City, N. J. Filter.	417,533	Dec. 24	2526	665	49	1889
Oliver, Campbell B. (See Oliver, James N. and C. B.)						
Oliver, David B. (See Aiken, Henry, assignor.)						
Oliver, Garrett H. (See Cohn and Watson, assignors.)						
Oliver, Henry M., assignor to Oliver Manufacturing Company, Newark, N. J. Running-gear for vehicles.	416,853	Dec. 10	1044	291	49	1583
Oliver, Henry W., New York, N. Y. Beam-compasses.	415,466	Nov. 19	1983	514	49	1136
Oliver, James N. and C. B., Genesee, Idaho Ter. Foot-board for heading-machines.	417,331	Dec. 17	1748	471	49	1732
Oliver Manufacturing Company. (See Oliver, Henry M., assignor.)						
Oliver, Paul A., Oliver's Mills, Pa. Mixer.	412,793	Oct. 15	1492	367	49	303
Oliver, Thomas P., Morton, assignor of one-half to M. Pfeiffer, Peoria, Ill. Wheel.	415,767	Nov. 26	2491	650	49	1344
Oliver, William W. (See Srenson, Clara, assignor.)						
Olmsted, David, assignor of part to C. L. Bracker and H. H. Clark, Minneapolis, Minn., W. E. Allington, East Saginaw, Mich., and W. H. Curtis, Chicago, Ill. Coin-operated selling device.	414,950	Nov. 12	1174	306	49	973
Olsen, assignor of one-half to J. C. Peterson, Ephraim, Ky. Lifting truss-girder.	414,843	Nov. 12	1009	261	49	946
Olsen, Olof C. S., Chicago, Ill. Partition for pigeon-holes.	417,429	Dec. 17	1912	511	49	1703
Olsen & Petterson. (See Olsen, Rasmus, assignor.)						
Olsen, Rasmus, assignor to Olsen & Petterson, Central City, Nebr. Hoop or truss rod lock.	416,419	Dec. 3	398	106	49	1449
Olsen, Schane, Paul. (See Lutz, Johann, assignor.)						
Olya, Thomas J. (See Robbins, Eliza F., assignor.)						
Olzendam, A. P., et al. (See Young, Charles H., assignor.)						
Onida Community. (See Ellis, Ferrand F., assignor.)						
Onida Community. (See Kinsley, Myron H., assignor.)						
Oram, John S., Cleveland, Ohio. Machine for twisting barrel-hoops.	411,832	Oct. 1	83	23	49	20
Ore Reduction Company. (See Goetz, George W., assignor.)						
Oriel, Benoit, St. Chamond, France. Bobbin-carrier for braking-machines.	415,311	Nov. 19	1741	432	49	1089
Ormsley, Alva R. (See Sangster and Ormsley.)						
Ormsley, David G., Peewaukee, Wis. Magazine-limekiln.	414,437	Nov. 5	393	99	49	818
Orr, Louis H., Springfield, Mass. Photograph-frame.	415,592	Nov. 19	2134	555	49	1167
Orr, Margaret, London, county of Middlesex, England. Knitted under-garment.	415,764	Oct. 15	1463	367	49	394
Orr, Walter C. (See Orr, William and W. C.)						
Orr, William and W. C., Trenton, N. J. Wire-netting machine.	417,934	Dec. 24	2677	705, 706, 707	49	1918
Orr, William M. (See Carnahan, Cyrus M., assignor.)						
Orvis, George. (See Foster, Frank N., assignor.)						
Orth, John C., assignor of one-half to C. H. Collins, Cleveland, Ohio. Finishing wood surfaces.	415,553	Nov. 19	2136		49	1167
Ortmayer, Carl G. (See Becker, Will R., assignor.)						
Ortmayer, Carl G., Chicago, Ill. Hame.	415,280	Nov. 19	1669	438	49	1079

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Osborn, Bennet, Newark, N. J. Paper box	417,076	Dec. 10	1369	374	49	1650
Osborn, Fred, Shamburg, Pa. Oil-well pump	414,820	Nov. 12	972	252	49	939
Osborn, Jesse B. (See Long and Osborn.)						
Osborn, John A. (See Osborn, John W. and J. A.)						
Osborn, John W. and J. A. Spore, Ohio. Fence-post	417,077	Dec. 10	1370	375	49	1650
Osborn, Oza B. and E. G. Richards, assignors to Berlin Machine Works, Beloit, Wis. Wood-polishing machine	416,801	Dec. 10	966	302	49	1562
Osborn, William, Duluth, Minn. Saw	416,421	Dec. 31	3437	898	49	2075
Osborne & Company, D. M. (See Case, Henry J., assignor.)						
Osborne, Frank S., et al. (See Prosser, Treat T., assignor.)						
Osborne, Joseph D., Newark, N. J. Tongue depressing insufflator	412,409	Oct. 8	918	240	49	186
Osborne, Wilbur P., Ansonia, Conn. Depressing device	413,541	Oct. 22	2599	673	49	525
Osbourne, Hosea P., Milwaukee, Wis. Steam-generator	418,057	Oct. 1	373	96	49	75
Osburg, Gustav, Chicago, Ill. Covering for vases	411,873	Oct. 1	146	36	37	49
Osburn, Harry G., Chicago, Ill. Electrode for secondary batteries	418,140	Dec. 24	3003	787	49	1078
Osburn, Harry G., assignor of one-half to E. H. Hill, Chicago, Ill. Secondary battery	414,438	Nov. 5	394	99	49	819
Osgood, Isaac, Chicago, Ill. Folding bed	416,010	Nov. 26	2820	739	49	1314
Osterhout, James A., assignor to National Machine Company, Troy, N. Y. Gage for button-hole sewing machines	416,182	Dec. 3	50	15	49	1379
Oswald, Louis, Newark, N. J. Satchel-latch	413,456	Oct. 22	2479	644	49	562
Otis Brothers & Company. (See Yenn and Smith, assignor.)						
Otis Falls Pulp Company. (See Horn, Thomas F., assignor.)						
Otis, James C., et al. (See Walter, David C., assignor.)						
Ott, Edward J., Norwalk, Ohio. Machine for pitching barrels	413,542	Oct. 22	2600	674	49	525
Ott, Samuel A., assignor to himself and L. Brodsky, Plover, Iowa. Mechanism for operating churns	417,935	Dec. 24	3682	707	49	1918
Ottenheimer, Albert, Stuttgart, Germany, assignor to Ottenheimer Brothers, New York, N. Y. Corset-steel	414,567	Nov. 5	593	153	49	857
Ottenheimer Brothers. (See Ottenheimer, Albert, assignor.)						
Otto, Adolf, Neubukow, Germany. Preserving-vessel	419,534	Oct. 8	1100	258	49	924
Otto, Gustav, Jersey City, N. J. Galvanic battery	415,975	Nov. 26	2773	726	49	1304
Overbaugh, Charles B., St. Louis, Mo. Machine for making connections, &c	417,519	Dec. 17	2147	572	49	1606
Overland Conductor Electric Railway Company. (See Finney, Joseph R., assignor.)						
Overpeck, Edson L., et al. (See Overpeck, Isaac E., assignor.)						
Overpeck, Isaac E., Overpeck, Ohio, assignor to E. L. Overpeck and S. Smith. Water-purifier	416,470	Dec. 31	3503	917	49	2028
Oviatt, David M., et al. (See Clarke, Joseph I. C., assignor.)						
Owen, Herbert S. (See Sharley and Owen.)						
Owesney, Frank X., assignor of one-half to A. J. Mealand, Canton, Ohio. Railway-rail fastening	416,342	Dec. 3	280	74	49	1424
Packard, James W. (See Von der Kammer, John, assignor.)						
Packard, James W., New York, N. Y., assignor to Westinghouse Electric Company, Pittsburgh, Pa. Incandescent lamp socket	417,787	Dec. 24	2461	649	49	1876
Packard, James W., New York, N. Y., assignor to Westinghouse Electric Company, Pittsburgh, Pa. Incandescent lamp socket	417,788	Dec. 24	2462	649	49	1876
Packard, James W., New York, N. Y., assignor to Westinghouse Electric Company, Pittsburgh, Pa. Incandescent electric lamp	417,789	Dec. 24	2464	649	49	1877
Packard, Jerome L., Boston, assignor to J. W. Brooks, trustee, Cambridge, Mass. Hel-triumping cutter	413,959	Oct. 29	3317	840	49	961
Packard, Ralph G. (See Morris and Packard.)						
Padgett, Jesse D., Dallas, Tex. Saddle	415,467	Nov. 19	1985	515	49	1136
Page, Abraham, Cortland, N. Y. Nut-lock	417,580	Dec. 17	2148	572	49	1607
Page, Albert W., Oregon, Wis. Mop	417,078	Dec. 10	1371	375	49	1650
Page, F. H. (See De Graff, John, assignor.)						
Page, John W., and C. M. Lamb, Adrian, Mich. Wire-fence machine	414,844	Nov. 12	1010	302	49	947
Page & Krause Manufacturing and Mining Company. (See Wander, Henry, assignor.)						
Page, Lewis E., and C. W. Andrews, Aletown, N. Y. Anger-handle	416,420	Dec. 3	388	106	49	1449
Page, Wilfred, Penn's Grove, Ohio. Two-wheeled vehicle	414,439	Nov. 5	396	99	49	819
Page, William H., Norwich, Conn. Automatic draft-regulator	413,789	Oct. 29	2966	773	49	969
Page, William L., Boston, Mass. Low-water alarm	414,990	Nov. 12	1231	321	49	989
Paget, Leonard, assignor of one-half to C. J. Kintner, New York, N. Y. Transformer or converter for alternating electric currents	413,810	Oct. 29	2993	779	49	911
Paige, Alonzo W., Chicago, Ill. Spring-dog	419,891	Oct. 15	1635	427	49	331
Paige, James H., Leadville, Colo. Combined lead-pencil and calendar	418,217	Dec. 31	3118	817	49	2011
Pain, Robert W., New York, N. Y. Musical instrument	417,680	Dec. 17	2289	606	49	1334
Pain, Robert W., assignor to Aeolian Organ and Music Company, New York, N. Y. Automatic musical instrument	419,657	Oct. 8	1291	338	49	361
Pain, Robert W., assignor to Aeolian Organ and Music Company, New York, N. Y. Organ	417,581	Dec. 17	2150	572	49	1607
Paine, George H., Philadelphia, Pa. Flour-sifter	413,303	Oct. 22	2365	599	49	461
Paine, Irving, Hornellsville, N. Y. Device for handling cigars	414,075	Oct. 29	3397	883	49	699
Paine, Robert A., and D. Baker, Jr., Richmond, Va. Cylinder stripping-machine	414,568	Nov. 5	393	133	49	628
Paine, Seth W., Rochester, N. Y. Spirometer	413,865	Oct. 29	3071	800	49	928
Paine, William H., assignor of one-half to G. Cushing, Skowhegan, Me. Machine for printing oil-cloth in colors	417,199	Dec. 10	1553	423	49	1685
Palmer, John L., New York, N. Y. Spring-dog	415,993	Nov. 26	3609	705	49	1287
Paif, Edmund, Berkeley, assignor of two-fifths to B. C. Turner, San Francisco, Cal. Dust feeder	414,322	Nov. 5	310	32	49	780
Palica, Frank J., Racine, Wis. Trunk or travelling-case	417,140	Dec. 17	1913	511	49	1763
Pallas, Paul F., Dresden, Saxony, Germany. Cattle-food	413,729	Oct. 29	2840	699	49	591
Palm, Gotlieb F. (See Smith, Palm and Irvine.)						
Palmatier, Gileas, Schenectady, N. Y. Ash-sifter	415,554	Nov. 19	2137	555	49	1167
Palmer, Albert S. (See Kay, Henry E., assignor.)						
Palmer, Augustus H., et al. (See Eichmeyer, Joseph C., assignor.)						
Palmer Brothers. (See Smith, Palm and Irvine.)						
Palmer, Ellen M., et al. (See Palmer, Seymour C., assignor.)						
Palmer, Frank H. (See Gay, Cassius M., assignor.)						
Palmer, George P., Boston, Mass. Tent	413,730	Oct. 29	2881	751	49	591
Palmer, Henry H., et al. (See Castleman, Morris N., assignor.)						
Palmer, Henry H. and S. D. Rockford, Ill. Churn-closure	418,354	Dec. 31	3337	871	49	2054
Palmer, Isaac E., Middletown, Conn. Hammock	412,892	Oct. 15	1635	427	49	332
Palmer, Isaac E., Middletown, Conn. Machine for tentering, straightening, and finishing woven fabrics	416,343	Dec. 3	282	75	49	1425

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.
			Spec.	Draw.	
Palmer, John F., assignor to T. Kane, Chicago, Ill. Blackboard-eraser.....	412,116	Oct. 1	475	124	49 95
Palmer, Samuel D. (See Palmer, Henry H. and S. D.).....					
Palmer, Samuel D., Rockford, Ill. Churn.....	418,355	Dec. 31	3338	872	49 3054
Palmer, Samuel D., Rockford, Ill. Churn closure.....	418,356	Dec. 31	3340	872	49 3054
Palmer, Samuel D., Rockford, Ill. Closure for churns.....	418,379	Dec. 31	3370	879	49 3061
Palmer, Seymour C., assignor to E. M. Palmer and A. Solmans, South Norwalk, Conn. Hat-forming machine.....	415,317	Nov. 19	1592	441	49 1060
Palmer, Stephen, Lansingburg, N. Y. Sash-cord guide.....	412,658	Oct. 8	1295	328	49 361
Palmer, William A., Anniston, Ala. Apparatus for molding pipes.....	414,569	Nov. 5	596	154	49 858
Palmer, William H., Jr., Norwich, assignor to Palmer Brothers, New London, Conn. Preparing bed-quilts for sewing.....	413,811	Oct. 29	2996	780	49 612
Palmer, William H., et al. (See Chassagne, Paul J., assignor.).....					
Pantzer, Albert, et al. (See Kurtz, John A., assignor.).....					
Paoli, John, Hoboken, N. J. Telescope.....	416,370	Dec. 3	174	47	49 1403
Paragon Slate Company. (See Marks, Solomon, assignor.).....					
Pardee, Frank, Hazleton, Pa. Car-coupling.....	412,536	Oct. 8	1102	329	49 324
Parke, Stants N., Bloomshury, N. J. Bolt.....	414,570	Nov. 5	597	154	49 859
Parke, William R., assignor of one-half to C. W. Leidy, Philadelphia, Pa. Insulating-hanger.....	416,122	Nov. 26	2022	737	49 1355
Parke, Amos S., Bay City, Mich. Saw-scarfing machine.....	415,381	Nov. 19	1090	438	49 1079
Parker, Aaron H., and A. H. Stoddard, Boston, Mass. Preparing porcelain teeth.....	418,360	Dec. 31	3371	880	49 3061
Parker, Alfred J., New Cross, county of Surrey, England. Compound for printing-surfaces.....	414,571	Nov. 5	598	155	49 859
Parker, Alfred J., New York, N. Y. Receipts for cigars.....	417,965	Dec. 17	1813	795	49 1743
Parker, Arthur A., and J. F. Landers, Jersey City, N. J. Fence-making machine. (Reissue.).....	11,044	Nov. 26	3064	796	49 1360
Parker, C. N. (See Turner, George W., assignor.).....					
Parker, Charles, Hartford, Conn. Window-jack.....	412,725	Oct. 15	1484	387	49 304
Parker & Co., Ira. (See Jackson, George W., assignor.).....					
Parker Company, Charles. (See Griessold, Lewis F., assignor.).....					
Parker, Francis E., and R. M. Clark, Kansas City, Mo. Cutter-bar.....	416,738	Dec. 10	878	337	49 1551
Parker, George S., assignor to Sanford Fountain Pen Company, (limited,) Janesville, Wis. Fountain-pen.....	416,944	Dec. 10	1174	321	49 1610
Parker, Homer N., Winchendon, Mass., assignor to W. M. Caldwell, Brooklyn, N. Y. Bit-holder for braces.....	412,535	Oct. 8	1100	329	49 324
Parker, James, Hoxton, county of York, England. Coll-released aprometer.....	414,323	Nov. 5	571	153	49 781
Parker, James L., Clarksburg, W. Va. Krait-cutter.....	415,622	Nov. 19	2334	609	49 1205
Parker, James, Williamsport, Pa. Suspender-buckle and tab-ring.....	417,522	Dec. 17	2152	573	49 1807
Parker, Joseph R., and M. House, Powder Springs, Ga. Plant-fender for plows.....	416,802	Dec. 10	968	202	49 1568
Parker, Lewis C., assignor to Peerless Wringer and Manufacturing Company, Cincinnati, Ohio. Wringer.....	413,543	Oct. 22	2602	674	49 525
Parker, Nathaniel W., and F. Wilcox, Hamilton, N. Y. Shafts for road-carts.....	413,304	Oct. 22	2266	599	49 461
Parker, Samuel J., et al. (See McBean, John C., assignor.).....					
Parker, Samuel J., and A. R. Rochester, N. Y. Machine for attaching labels.....	414,991	Nov. 12	1233	322	49 090
Parkhurst, A. (See Circle, Franklin P., assignor.).....					
Parkhurst, Leonard W., Hyde Park, Mass. Needle-bar for sewing-machines.....	413,680	Oct. 29	2813	732	49 577
Parkinson, George M. (See Parkinson, Tom and G. M.).....					
Parkinson, George W., Fishkill-on-the-Hudson, N. Y. Has-sweat.....	412,261	Oct. 1	606	157	49 121
Parkinson, Tom and G. M., Doncaster, England. Apparatus for drying, heating, cooling, or purifying grain.....	417,373	Dec. 17	1666	451	49 1716
Parks, Lewis F., Cincinnati, Ohio. Tenoning-machine.....	415,394	Nov. 19	1861	455	49 1110
Parliament, Henry C., et al. (See Breed, George N., assignor.).....					
Parmenter, Wilbur F., assignor to D. J. Payne, Middletown, Conn. Convertible chair.....	417,681	Dec. 17	2290	607	49 1834
Parmenter, William J. (See Hughes, Patrick K., assignor.).....					
Parody, George F. (See McKenzie, Hector F., assignor.).....					
Parrish, Charles B. (See Parrish, James S., assignor.).....					
Parrish, James S., Clarksville, assignor to C. B. Parrish, Montgomery County, Tenn. Toll-appliance.....	416,429	Dec. 3	500	136	49 1470
Parrish, John W., Milton, W. Va. Alarm-lock.....	417,079	Dec. 10	1073	375	49 1651
Parry, David M., and T. H., Indianapolis, Ind. Vehicle-shaft.....	415,732	Nov. 26	2412	630	49 1229
Parry, Thomas H. (See Parry, David M. and T. H.).....					
Parsons, Franklin E., and F. F. Prickett, Riverside, W. Va. Fence.....	415,420	Nov. 19	1905	495	49 1190
Parsons, Harry T. (See Russell and Parsons.).....					
Parsons, Henry, Marlborough, Mass. Elevator.....	417,374	Dec. 17	1668	451	49 1717
Partello, Joseph D., and J. F. Jackson, Rochester, Mich. Tufting attachment for knitting-machine.....	416,421	Dec. 3	399	107	49 1440
Partridge & Co., Homosco. (See Sellers, William, assignor.).....					
Partridge, Thomas. (See Steedman, Partridge, and Farnhill.).....					
Partridge, William, and W. J. McCutcheon, Jr., Allegheny, Pa. Metallic railway-tie.....	418,052	Dec. 24	2654	752	49 1932
Patent Button Company. (See White, Franklin R., assignor.).....					
Paterson, James and W., Stockton, Cal. Combined harvester.....	417,936	Dec. 24	2684	707	49 1919
Paterson, William. (See Paterson, James and W.).....					
Pattmore, John S., assignor of one-half to J. B. Dolson, Terre Haute, Ind. Three-wheeled vehicle.....	417,332	Dec. 17	1748	471	49 1732
Paton, James, Cleveland, Ohio. Machine for galvanizing sheet or plate metal.....	414,951	Nov. 12	1175	306	49 978
Paton, James, Johnstone, county of Renfrew, Scotland. Case for exhibiting shoe-laces, &c. Patric, Charles E., Springfield, Ohio. Change of speed.....	414,992	Nov. 12	1210	322	49 990
Patrick, Alexander L., Detroit, Mich. Garbage-cremating furnace.....	414,324	Nov. 5	513	54	49 781
Patrick, Armena. (See Towsley, Miron G., assignor.).....	413,832	Oct. 29	3025	788	49 618
Patrick, Marcus C., assignor to C. E. Bond and R. Williams, Minneapolis, Minn. Miter-box.....	414,655	Nov. 5	732	169	49 885
Patrick, William A., and A. Hasty, Saco, Me. Automatic leash-indicator for warping-frames.....	414,243	Nov. 5	101	24	49 758
Patridge, James O., Wellston, Ohio. Car-wheel.....	416,069	Nov. 26	2022	702	49 1334
Patt, William M., Providence, R. I. Machine for ornamenting wire.....	415,880	Nov. 26	2618	655	49 1370
Patten, Francis J., New York, N. Y. Electric motor.....	413,065	Oct. 15	1911	500	49 386
Patten, Francis J., New York, N. Y. Generation and distribution of electric currents.....	418,652	Dec. 31	3776	988	49 2145
Patten, Francis J., New York, N. Y. System of electrical distribution.....	418,653	Dec. 31	3777	988	49 2145
Patten, Francis J., New York, N. Y. Electric motor.....	418,654	Dec. 31	3778	988	49 2145
Patten, Francis J., New York, N. Y. Distribution of electric currents.....	418,655	Dec. 31	3779	988	49 2146

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Patten, James S., Baltimore, Md. Needle-guard for sewing-machines	412,302	Oct. 1	666	158	49	121
Patterson, Frank J., and C. D. Grimes, assignors to National Cash Register Company, Dayton, Ohio. Cash indicator, register, and recorder	414,446	Nov. 5	297	{ 100 } 101	49	819
Patterson, George H., et al. (See O'Brien, John F., assignor.)						
Patterson, John C., assignor of one-half to J. Kirby, Jr., Dayton, Ohio. Twine-holder	415,218	Nov. 19	1505	411	49	1060
Patterson, John H., assignor to National Cash Register Company, Dayton, Ohio. Cash indicator and register	414,442	Nov. 5	405	102	49	821
Patterson, John H., C. D. Grimes, and E. Rench, assignors to National Cash Register Company, Dayton, Ohio. Cash indicator and register	414,441	Nov. 5	406	101	49	820
Patterson, Peter, assignor of one-half to National Tube Works Company, McKeesport, Pa. Apparatus for welding tubing	416,374	Dec. 3	333	87, 88	49	1435
Patterson, William F. (See Isherwood, John J., assignor.)						
Patterson, William F., Allegheny, Pa. Manufacturing hooded skis	412,411	Oct. 8	920	241	49	186
Patterson, William F., and J. J. Isherwood, Allegheny, Pa.; said Isherwood assignor to said Patterson. Securing plugs in tubular skis	412,410	Oct. 8	919	240	49	186
Patina, Wellington, Bridgeville, Del. Fruit-basket	415,555	Nov. 19	2138	556	49	1168
Pattison, Richard, assignor to Wheeler Radiator Company, Boston, Mass. Beaded fillet for street-lamps	413,342	Oct. 22	2162	523	49	441
Pattison, Sidney, London, county of Middlesex, England. Saddle for velocipedes	415,223	Nov. 19	1641	434	49	1070
Patton, William M., Philadelphia, Pa. Pneumatic caisson	414,244	Nov. 5	102	34	49	758
Paul, Alexander, Meyersdale, Pa. Brick	414,918	Nov. 12	1127	293	49	969
Paul, Almarin B., San Francisco, Cal. Ore-concentrator	414,119	Oct. 29	3459	899	49	712
Paul, John, La Crosse, Wis. Band-saw mill	418,422	Dec. 31	3438	{ 898 } 899	49	2075
Paul, Otto C. (See Reilly, John P., assignor.)						
Paul, Wilbur C., Olathe, Kans. Gripper for printing-presses	412,412	Oct. 8	922	241	49	177
Pauli, Archibald W., Wheeling, W. Va. Making sheet-metal articles	413,372	Oct. 22	2371	614	49	479
Pauli, Archibald W., Wheeling, W. Va. Drawing sheet metal	413,373	Oct. 22	2372	614	49	479
Pauli, Archibald W., Wheeling, W. Va. Forming sheet-metal articles	413,374	Oct. 22	2373	{ 614 } 615	49	480
Paulmann, Henry. (See Paulmann, W. and H.)						
Paulmann, William and H., Glastonbury, Conn. Stop-motion for sewing and looping machines	417,333	Dec. 17	1749	471	49	1732
Pauly, Max. (See Jaenic, Carl, assignor.)						
Pavyer, Benjamin J., and T. Burns, St. Louis, Mo., assignors to St. Louis Type Foundry, of Missouri. Paper-cutting machine	413,086	Oct. 15	1913	500	49	387
Pavyer, James G., St. Louis, Mo. Machine for making type	413,087	Oct. 15	1914	{ 500 } 501	49	387
Paxman, James. (See Bear and Paxman.)						
Payan, Clément, Philadelphia, Pa., assignor to Electric Storage Battery Company, Gloucester City, N. J. Mold for casting metals	415,328	Nov. 19	1768	458	49	1094
Payan, Clément, Philadelphia, Pa., assignor to Electric Storage Battery Company, Gloucester City, N. J. Electrode for secondary batteries	415,329	Nov. 19	1767	459	49	1094
Payan, Clément, Philadelphia, Pa., assignor to Electric Storage Battery Company, Gloucester City, N. J. Manufacturing porous metal plates	415,330	Nov. 19	1769	{ 460 } 461	49	1095
Payan, Clément, Philadelphia, Pa., assignor to Electric Storage Battery Company, Gloucester City, N. J. Secondary battery	415,331	Nov. 10	1772	461	49	1095
Payan, Clément, Philadelphia, Pa., assignor to Electric Storage Battery Company, Gloucester City, N. J. Mold for casting plates for use as electrodes of storage-batteries	415,332	Nov. 19	1774	461	49	1095
Payan, Clément, Philadelphia, Pa., assignor to Electric Storage Battery Company, Gloucester City, N. J. Insulator for electric batteries	415,333	Nov. 19	1776	461	49	1095
Payan, Clément, Philadelphia, Pa., assignor to Electric Storage Battery Company, Gloucester City, N. J. Producing crystallized metal plates	415,347	Nov. 19	1796	{ 467 } 468	49	1099
Payan, Clément, Philadelphia, Pa., assignor to Electric Storage Battery Company, Gloucester City, N. J. Producing crystallized metal plates	415,348	Nov. 19	1800	{ 468 } 469	49	1099
Payan, Clément, Philadelphia, Pa., assignor to Electric Storage Battery Company, Gloucester City, N. J. Producing crystallized metal plates	415,349	Nov. 19	1804	{ 469 } 470	49	1100
Payan, Clément, Philadelphia, Pa., assignor to Electric Storage Battery Company, Gloucester City, N. J. Producing porous crystallized metal plates	415,683	Nov. 19	2205	609	49	1205
Payne, Charles H., assignor of one-half to H. S. Corwin, Toledo, Ohio. Safety-valve	417,275	Dec. 17	1671	432	49	1717
Payne, Dwight J. (See Parmelee, Wilbur F., assignor.)						
Payne, James S., Virginia, Ill. Fence-post	413,088	Oct. 15	1918	501	49	387
Payne, John, Connerville, Ind. Portable voting-hood	415,395	Nov. 19	1863	485	49	1111
Payne, Oliver N., et al., executors. (See Grimm, Paul H.)						
Payson, Alonzo P., assignor to Golden State and Miners Iron Works, San Francisco, Cal. Settling spud and gage for dredgers	418,471	Dec. 31	3505	917	49	2029
Peabody, Adolph, New York, N. Y. Catch-case, locket, or similar article	418,218	Dec. 31	3119	817	49	2011
Peabody, Joseph W., Boston, Mass. Ribbon-feeding and attaching of type-writing machines. Pease, John G., E. L. and I. Dye, Salem, Mo. Receipts for retailing nails.	416,490	Dec. 3	501	136	49	1470
Peacock, Elijah P. (See Knowlton and Peacock.)	413,544	Oct. 22	2602	674	49	525
Peacock, Frank R., Le Mars, Iowa. Well-drilling machine	416,375	Dec. 3	330	88, 89	49	1435
Peacock, William J., and J. W. Croan, Tiptonville, Tenn. Ribbon-reel	413,545	Oct. 22	2603	675	49	525
Pearce, Walter M., assignor of one-half to R. A. Innie, Nashville, Ind. Tensioning-machine. Pearce, William J. (See Pitts, George W., assignor.)	417,899	Dec. 10	1556	423	49	1636
Peard, Charles H., Philadelphia, Pa. Car-coupling	414,919	Nov. 12	1128	293	49	969
Peard, James J., and J. W. Croan, Tiptonville, Tenn. Car-coupling	415,219	Nov. 19	1536	411	49	1061
Pearle, George R., Lynn, assignor of one-half to E. L. Sprague, Boston, Mass. Tensioning device for sewing-machines	416,223	Dec. 3	117	33	49	1391
Pearl, Henry, Mount Vernon, assignor of one-half to L. Weil, New York, N. Y. Can-stop-per						
Pearall, Samuel J., Saratoga Springs, N. Y. Car-stop	413,546	Oct. 22	2603	675	49	526
Pearson, Walter B., Chicago, Ill. Safety-cup for steam-engines	418,219	Dec. 31	3119	817	49	1287
Pease, Charles F., assignor to W. C. Ritchie, Chicago, Ill. Box-setting-up-machine	416,271	Dec. 3	176	47, 48	49	1403
Pease, George F., Springfield, Mass. Dentist's mouth-mirror	415,788	Nov. 26	2192	621	49	1244
Pease, Henry C., Worcester, Mass. Metal-planting machine	413,457	Oct. 22	2480	644	49	502
Pease, Jacob, Brooklyn, assignor of one-half to W. Brookfield, New York, N. Y. Glass furnace	416,703	Dec. 3	824	224	49	1533
Peck, Charles C., Middlebury, Vt., assignor to Giant Electric Motor Company, Kittery, Me. Electric motor	411,813	Oct. 1	26	23, 24	49	20
Peck, Charles F., et al. (See Tesia, Nikola, assignor.)						
Peck, Charles H., Worcester, Mass. Voting-compartment	418,624	Dec. 31	3747	979	49	2137
Peck, Horace B., et al. (See Boyle, Homer L., assignor.)						
Peck, Ira F., Providence, R. I. Manufacture of facing staves	415,257	Nov. 19	1719	448	49	1064
Peck, Ira F., Providence, R. I. Manufacture of hollow rivets	415,298	Nov. 19	1720	448	49	1065

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Spec.	Monthly volume.	Dr'g.	Vol.	Official Gazette.
Peck, Melinda. (See Adams, Phineas H., Jr., and O. T. X., assignors.)							
Peck, Peter, Southbridge, Mass. Spectacles	417,080	Dec. 10	1374	376	49	1651	
Peck, Stow & Wilcox Company. (See Gramis, Hial S., assignor.)							
Pecker, Frank S., Boston, Mass. Lathe-tool	412,938	Oct. 1	374	96	49	76	
Peckham Car Wheel Company. (See Peckham, Edgar, assignor.)							
Peckham, Edgar, New York, N. Y. Motor-truck	417,937	Dec. 24	2686	708	49	1919	
Peckham, Edgar, New York, N. Y. Vehicle motor-gear	417,938	Dec. 24	2688	708	49	1919	
Peckham, Edgar, assignor to Peckham Car Wheel Company, New York, N. Y. Car axle bearing	417,976	Dec. 17	1672	452	49	1717	
Peckham, Edgar, New York, assignor to Peckham Car Wheel Company, Syracuse, N. Y. Car-brake	417,394	Dec. 17	1833	496	49	1750	
Peckham, Luther A., assignor of one-half to C. Fletcher, Providence, R. I. Feeding mechanism for carding-engines	415,651	Nov. 19	2245	596	49	1195	
Peckham, Luther A., assignor of one-half to C. Fletcher, Providence, R. I. Feeding mechanism for carding-engines	415,664	Nov. 19	2336	610	49	1206	
Peckham, Luther A., assignor of one-half to C. Fletcher, Providence, R. I. Feeding mechanism for carding-engines	416,123	Nov. 26	3034	758	49	1333	
Peckham, William M., et al. (See Chambers, Adelbert, assignor.)							
Peddler, John, Pittsburgh, Pa. Manufacturing steel hollies having layers of different carbons	412,493	Oct. 15	1637	427	49	332	
Peddler, John, Pittsburgh, Pa. Utilizing worn-out millway-tires	416,401	Dec. 3	502	136	49	1470	
Peden, Jonathan C., Rose, Mo. Seed-drill and fertilizer-distributer	413,866	Oct. 29	3073	800 801	49	829	
Peeling, George C., Lock Haven, Pa. Siphon-bung	412,423	Dec. 31	3439	899	49	2076	
Peerless Button Hole Attachment Company. (See Bulley, Louis T., assignor.)							
Peerless Manufacturing Company. (See Fitch, William E., assignor.)							
Peerless Reaper Company. (See Slantz, Alhurice O., assignor.)							
Peerless Wyringer and Manufacturing Company. (See Brooks, Frederick W., assignor.)							
Peerless Wyringer and Manufacturing Company. (See Parker, Lewis C., assignor.)							
Pelrice, Edwin J., Jr. (See Cuming and Pelrice.)							
Pelkey, Oliver, West Duluth, assignor of one-half to T. J. Ryan, Duluth, Minn. Diving apparatus	418,051	Dec. 24	2855	751	49	1952	
Pell, Thomas J. (See Prentiss, George P., assignor.)							
Pelzer, Friedrich, Dortmund, Prussia, Germany. Centrifugal fan	416,070	Nov. 26	3923	762	49	1334	
Pence, James H., et al. (See Baker, Francis M., assignor.)							
Pendergast, James, New Haven, Conn. Carriage-step	415,789	Nov. 26	2493	651	49	1244	
Pendleton, John H., Brooklyn, and A. Bryson, Jr., assignors of one-half to C. Tiers, New York, N. Y., and A. H. Tiers, Morristown, N. J. Safety and anti-friction device for railway-curves	415,536	Nov. 19	2139	557 558	49	1168	
Peniston, Charles W. (See Gurney, Levey and Peniston.)							
Penn, George F. (See Scheffel and Penn.)							
Penn, George W., Onawa, Iowa. Feed-water heater	415,354	Nov. 19	1643	424	49	1070	
Penney, Edgar, Waynesborough, Pa. Compressor-pump	416,071	Nov. 26	2934	762	49	1334	
Penney, Edgar, Waynesborough, Pa. Compressor-pump for refrigerating-machines	416,072	Nov. 26	2925	763	49	1335	
Pennington, Edward J., Edinburg, Ind. Shaft-hanger	417,881	Dec. 24	3294	683	49	1901	
Pennock, John D. (See Bradburn, Trump, and Pennock.)							
Pennsylvania Globe Gas Light Company. (See Meredith, Edmund, assignor.)							
Pennycook, John T., New York, N. Y., assignor to Alpha Glass and Metal Company, of New Jersey. Cigar-wrapping machine	414,572	Nov. 5	369	154	49	850	
Pennycook, John T., New York, N. Y., assignor to Alpha Glass and Metal Company, of New Jersey. Skylight	417,334	Dec. 17	1751	479	49	1733	
Perchal, Herbert E., Lynn, assignor to E. Converse, Worcester, Mass. Clothes-line	416,854	Dec. 10	1048	282	49	1564	
Perdue, Lemuel F. (See Vanover, Joseph M., assignor.)							
Peregrine, Seymour W., Grand Rapids, Mich. Fastening for slatted furniture	414,573	Nov. 5	601	155	49	859	
Peregrine, Seymour W., Grand Rapids, Mich. Wood-working machine	410,492	Dec. 3	504	136	49	1470	
Perkins, Hazen H., Kewanee, Ill. Husking-pin	418,219	Dec. 31	3120	817 818	49	2011	
Perkins, Joshua, Danielsonville, Conn. Truss	416,739	Dec. 10	879	227	49	1551	
Perkins, Lee E. S., et al. (See Chace, Albert F., assignor.)							
Perkins, Willis J., Grand Rapids, Mich. Shingle-packing machine	414,993	Nov. 12	1236	323	49	990	
Perkins, Willis J., Grand Rapids, Mich. Log-dogging apparatus	414,994	Nov. 12	1238	323	49	991	
Perot, Edward S., New York, N. Y. Distributing-box for electrical conduits	416,234	Dec. 3	118	33	49	1392	
Perot, Edward S., New York, N. Y. Distributing-box for electrical conduits	416,235	Dec. 3	119	34	49	1393	
Perry, Charles E., Boston, assignor of one-half to H. M. Cable, Hyde Park, Mass. Black tablet	413,147	Oct. 15	2013	524	49	405	
Perry, James A., assignor to W. E. Perry, Yarmouth, Nova Scotia, Canada. Egg-beater	415,733	Nov. 26	2412	631	49	1220	
Perry, William, New York, assignor of two-thirds to D. De Kremen and J. U. Shorter, Brooklyn, N. Y. Smoke-consuming furnace	412,629	Oct. 8	1296	339	49	661	
Perry, William E. (See Perry, James A., assignor.)							
Perry, William P., West Medford, Mass. Velocipede	415,790	Nov. 26	2493	651	49	1244	
Persard, Elias L. (See Lowe, Wade H., assignor.)							
Pertz, John W. (See Carter and Pertz.)							
Pertz, John W., assignor of one-half to G. R. Stewart, Kokomo, Ind. Separator and trap	413,243	Oct. 22	2162	563	49	441	
Pesant, Alfonso, et al. (See Loomis, Franklin D., assignor.)							
Peter, Henry, Houston, Tex. Saw	413,069	Oct. 15	1919	501	49	358	
Peters, Daniel, Cincinnati, Ohio. Tobacco-pipe	412,600	Oct. 8	1297	359	49	362	
Peters, J. Wilson, Galloway, Ohio. Fire-escape mechanism for harness	411,534	Oct. 1	29	24	49	30	
Peters, Richard E., and W. T. Green, Concord, N. H. Umbrella or parasol	412,804	Oct. 15	1639	428	49	332	
Peters, William F., Cincinnati, Ohio. Permutation-lock	412,977	Oct. 15	1751	457 458	49	335	
Petersen, Adolph, Brooklyn, N. Y. Baby-walker	414,130	Oct. 29	3460	899	49	712	
Petersen, Albin C. (See Wise and Petersen.)							
Petersen, Enoch, assignor to Gibson, Parish & Company, Chicago, Ill. Machine for making spiral wire springs	416,642	Dec. 3	737	900	49	1516	
Petersen, Henry W., Appleton, Wis. Pipe-carrier	414,423	Nov. 5	406	102	49	821	
Peterson, Andrew J., assignor of one-half to F. Kruger, North Branch, Minn. Insect-destructor	418,054	Dec. 24	2857	752	49	1933	
Peterson, Gustavus, Tuscarora, N. Y. Mine's candlestick	417,892	Dec. 24	2294	653	49	1901	
Peterson, James, Oskaloosa, Kans. Harness attachment	416,945	Dec. 10	1176	321	49	1610	
Peterson, James C. (See Olsen, Andraas, assignor.)							
Petit, Victor, et al. (See Drexler, Joseph, assignor.)							
Pettehne, Robert T., Wyoming, Pa. Shovel or scoop	413,262	Oct. 22	2168	570	49	446	
Pettge, Friedrich, and L. Metzger, Dessau, Germany. Bung	413,661	Oct. 22	2213	733	49	577	

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.
			Spec.	Dr. g.	
Pettibone, Mulliken & Company. (See Ericson, John V., assignor.)					
Pettigrow, Chas. G. (See Smith and Pettigrow.)					
Pettit, Clifton D., Terra Haute, Ind. Grain-car door.	415,468	Nov. 19	1986	515	49 1136
Pettit, Charles, assignor of one-half to C. S. Pettit, Lincoln, Nehr. Spooling attachment.	414,574	Nov. 5	502	155	49 859
Pettit, Charles S. (See Pettit, Charles, assignor.)					
Peyton, Raymond O., Terra Haute, Ind. Straw-burning stove.	415,192	Nov. 12	1414	369	49 1927
Peyton, William C., and J. Burman, Richmond, Ky. Fence-building mechanism.	414,444	Nov. 5	408	103	49 822
Pfannkuche, Gustav, Cleveland, Ohio. Dynamo-electric machine.	413,148	Oct. 15	3013	525	49 406
Pfannkuche, Gustav, Cleveland, Ohio. Electric-current indicator.	414,076	Oct. 29	3309	883	49 690
Pfannkuche, Gustav, assignor to Schuyler Electric Light Company, Hartford, Conn. Ring-armature for electric generators.	414,245	Nov. 5	104	25	49 759
Pfanschmidt, Edward C., Chicago, Ill., assignor to Lapham-Dodge Company, Cleveland, Ohio. Wash-board.	417,580	Dec. 24	2592	682	49 1901
Pfandler, John M., Rochester, N. Y. Apparatus for cooling liquids.	414,250	Oct. 8	742	193	49 153
Pfautz, Daniel M., assignor of three-eighths to R. K. Barrett, Philadelphia, Pa., and R. N. Adams, Camden, N. J. Spring-motor for sewing machines.	417,081	Dec. 10	1375	376	49 1651
Pfeffer, John F. (See Harrison, Alfred M., assignor.)					
Pfeifer, Michael. (See Oliver, Thomas P., assignor.)					
Pfingst, Louis, Boston, Mass. Brake for electric cars.	413,900	Oct. 29	3218	841	49 661
Pfingst, Louis, Boston, and S. A. Bemis, Springfield, Mass. Brake for electric-car trucks.	414,575	Nov. 5	602	155	49 860
Pfister, Herman C., et al. (See Kent, Artemas A., assignor.)					
Pforzheimer, Isaac, assignor of one-half to C. Zallud, New York, N. Y. Registering-receptacle for cots.	413,206	Oct. 22	2106	547	49 430
Pforzheimer, Isaac, assignor of one-half to C. Zallud, New York, N. Y. Ticket-registering machine.	413,307	Oct. 22	2109	548	49 430
Pforzheimer, Isaac, assignor of one-half to C. Zallud, New York, N. Y. Cash-box.	415,306	Nov. 19	1864	485	49 1111
Phelps, Charles, Salem, Mass. Burglar-alarm.	412,661	Oct. 8	1297	339	49 202
Phelps, Eugene M. (See Thomson and Phelps.)					
Phelps, Eugene M., Lynn, Mass. Button-hole piece for hoots or shoes.	413,607	Oct. 22	2703	703	49 547
Phelps, Lachlan J., and J. J. Retort, vaporizing sponge and pencil holder.	413,702	Oct. 29	2926	702	49 690
Phelps, Theodore B., Brewster, N. Y. Combined saw and pencil holder.	415,350	Dec. 31	3122	912	49 2011
Phelps, Walter J., and J. B. McNabb, Salem, Ohio; said McNabb assignor to said Phelps. Wiper for soldering machines.	417,692	Dec. 17	2294	607	49 1335
Phelps, William G. S., Louis, Mo. Tennis score.	415,055	Dec. 24	2258	752	49 1353
Phoenix, William, Chicago, Ill. Journal-box for sheave-wheels.	415,791	Nov. 26	2484	631	49 1345
Phoenix, William, Chicago, Ill. Oiling and adjusting device for cable-sheaves.	415,792	Nov. 26	2495	628	49 1245
Philadelphia Exhaust Ventilator Company. (See Paulson, John, assignor.)					
Philadelphia Hardware and Malleable Iron Works. (See Johnson, Joseph W., assignor.)					
Philadelphia Textile Machinery Company. (See Proctor and Knowles, assignors.)					
Philson, George, assignor to Dodge Manufacturing Company, Mishawaka, Ind. Pulley.	413,628	Oct. 22	2730	707	49 552
Philips, John. (See Strickler, Philips, and Stouffer.)					
Phillips, William. (See Knowles and Phillips.)					
Philippi, Frank A., assignor of three-fourths to C. J. Clark and S. Lutz, Reading, Pa. Voltaic belt.	416,803	Dec. 10	969	263	49 1568
Phillips, Alexander C., Greeley Center, Nehr. Lock for wagon-hodies.	418,625	Dec. 31	3748	979	49 2133
Phillips, Edward, Mount Forest, Ontario, assignor of one-half to C. L. and J. D. Smith, Yarna, Canada. Dust-proof shoe-case.	415,056	Nov. 12	1329	346	49 1008
Phillips, Edward, Mount Forest, Ontario, assignor of one-half to C. L. and J. D. Smith, Yarna, Canada. Cabinet-file.	415,057	Nov. 12	1330	347	49 1009
Phillips, Edward, Mount Forest, Ontario, assignor of one-half to C. L. and J. D. Smith, Yarna, Canada. Dust-proof shoe-case.	415,058	Nov. 12	1330	347	49 1009
Phillips, Edwin G., assignor of two-thirds to S. Weiskopf and T. P. Livingston, Charleston, S. C. Pilot for locomotives.	413,305	Oct. 22	2267	590	49 461
Phillips, Frank R., Covington, Ky., assignor to F. O. Loveland, Cincinnati, Ohio. Counting apparatus.	414,335	Nov. 5	215	54	49 781
Phillips, George, Key West, Fla. Coating for wooden structures.	414,246	Nov. 5	105	25	49 759
Phillips, George, Key West, Fla. Coating for wooden structures.	414,247	Nov. 5	106	25	49 759
Phillips, George, Key West, Fla. Preserving wood.	414,248	Nov. 5	106	25	49 759
Phillips, George, Key West, Fla. Preserving wood.	414,249	Nov. 5	107	25	49 759
Phillips, George, Key West, Fla. Pile or timber.	414,250	Nov. 5	108	25	49 759
Phillips, George, Key West, Fla. Pile or timber.	414,251	Nov. 5	109	25	49 759
Phillips, Henry, and F. W. Byers, Ottumwa, Iowa; said Byers assignor to said Phillips. Pick or tool holder.	417,592	Dec. 17	2019	539	49 1783
Phillips, Joseph. (See Joseph, B., assignor.)					
Phillips & Soas, E. (See Sweeney, Edward M., assignor.)					
Phillips, Thomas H., and J. E. Evans, Wilkes-Barre, Pa. Coal-separator.	413,416	Oct. 22	2427	630	49 492
Phillips, Walter, and R. W. Smith, Coventry, England. Velocipede.	416,493	Dec. 3	505	137	49 1470
Phillips, William A., assignor to Edison Machine Works, Schenectady, N. Y. Machine for covering wire.	413,629	Oct. 22	2731	708	49 552
Phillips, John B., and S. P. Dealy, Hartsville, Ind. Domestic boiler.	412,662	Oct. 8	1299	339	49 202
Phippen, George D., and J. H. Browne, Salem, Mass. Coupon-cutter.	417,366	Dec. 17	1814	487	49 1743
Phipps, John. (See Garrett and Webster, assignors.)					
Piatt, William M., Mac-o-cheek, Ohio. Grain-blender.	415,124	Nov. 12	1418	370	49 1027
Piatt, William M., assignor of one-third to B. P. Runkle, Mac-o-cheek, Ohio. Grain-blender.	415,125	Nov. 12	1416	370	49 1027
Pichereau, Amiel P., Galesburg, Ill. Inkstand.	417,062	Dec. 10	1376	377	49 1651
Pickering, Abel W. (See Pickett and Pickering.)	418,566	Dec. 31	3688	964	49 2120
Pickering, Barton, et al. (See Dismas, Joseph, assignor.)					
Pickett, George W., and A. W. Pickering, Portland, Colo. Wire-rope tramway.	414,445	Nov. 5	411	103	49 822
Pietet, Raoul P., Geneva, Switzerland, assignor of two-thirds to R. Rudloff-Grübs and Rudloff-Grübs & Co., Berlin, Germany. Frigorific apparatus.	415,881	Nov. 26	2619	685	49 1270
Pielsticker, Carl M., London, county of Middlesex, England. Purifying alcohol.	412,931	Oct. 15	1693	405	49 342
Pierce, Butler & Pierce Manufacturing Company. (See Waggoner, Edward P., assignor.)					
Pierce, Calvin S. S. (See Pickett and Picking.)					
Pierce, Charles W., Oak Hill, N. Y. Apparatus for molding.	414,576	Nov. 5	604	156	49 860
Pierce, Charles W., Rocky Hill, Conn. Kettle.	418,340	Dec. 31	3310	865	49 2049

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. et	Vol.	Page.
Pierce, Edgar R. M. (See Vitler and Pierce.)						
Pierce, Henry A., Chicago, Ill. Cable railway	414,521	Nov. 12	973	252	49	939
Pierce, William O., Winchester, Ind. Game	414,522	Nov. 5	110	85	49	760
Piero, William J. (See Morgan, Lewis C., assignor.)						
Pirson, Daniel E. (See Wolfe, John, assignor.)						
Pitard, Henry G., New York, N. Y. Magnesium flash-lamp	413,547	Oct. 22	2604	675	49	536
Pike, Paphro D., Brooklyn, N. Y. Packing-box	414,077	Oct. 29	3400	885	49	699
Piko, Robert G. Jr., Brooklyn, N. Y. Wire-stretcher	413,833	Oct. 29	3036	788	49	619
Pike, William H., London, county of Middlesex, England. Means of pouring or discharging liquid from vessels	416,494	Dec. 3	507	138	49	1470
Pilcher, James S. (See Fulcher, Joseph W., assignor.)						
Pilcher, John V., Louisville, Ky. Pocket-knife	416,946	Dec. 10	1177	321	49	1611
Pilcher, John V., Louisville, Ky. Cuff-fastener	418,056	Dec. 24	2-40	732	49	1953
Pilkington, Joseph H., Waterbury, Conn. Glass	415,557	Nov. 19	2141	558	49	1168
Pillsbury, Daniel D. C., Lynn, assignor to J. W. Brooks, trustee, Cambridge, Mass. H. trimming machine	417,835	Dec. 24	2527	665	49	1889
Pine, James K. P., Lansingburg, N. Y. Making apparel-collars	415,059	Nov. 12	1331	347	49	1009
Pinkney, William A., assignor of one-half to F. H. French, Stanton, Mich. Potato-digger	414,656	Nov. 5	733	189	49	885
Pinkowski, Friedrich. (See Klinik, Pinkowski, and Gross.)						
Piper, Orin, Manchester, N. H., assignor to Dutcher Temple Company, Hopedale, Mass. Loom-temple	414,657	Nov. 5	734	190	49	885
Pitkin, Albert J., Schenectady, N. Y. Compound engine	417,083	Dec. 10	1377	377	49	1631
Pitts Agricultural Works. (See Bronson, Levi, assignor.)						
Pitts, Aurelius Y., Marselle, Ill. Elevator-case	414,721	Nov. 12	836	217	49	912
Pitts, George W., Oxford, Ala., assignor of one-half to W. J. Pearce. Fire-fender and and-iron	413,548	Oct. 22	2605	675	49	536
Pladeek, Hugo, New Durham, N. J. Child's carriage	414,577	Nov. 5	605	156	49	860
Plancin, Emilio, Brooklyn, assignor to Iron Clad Manufacturing Company, New York, N. Y. Milk-can	417,663	Dec. 17	2205	608	49	1835
Plank, F. (See Gregg, Leslie A., assignor.)						
Plano Manufacturing Company. (See Blood, Joseph W., assignor.)						
Plato Manufacturing Company. (See Hunt, George D., assignor.)						
Platt, Wilbur J., Cleveland, Ohio. Carriage-boy socket	412,291	Oct. 8	743	194	49	153
Pleas, William B., Stockton, assignor of one-half to R. C. Sargent, San Joaquin, Cal. Derrick	418,221	Dec. 31	3122	818	49	2011
Pliesch, James, Columbus, Ohio. Stave-making machine	415,558	Nov. 19	2142	559	49	1169
Plim, David N., Waterbury, Conn. Drawer	413,537	Oct. 8	1104	289	49	325
Plummer, E. H., et al. (See Church, Frank S., assignor.)						
Plummer, John W., Somerville, assignor to Acme Heel Trimmer Company, Boston, Mass. Heel-trimming machine	413,090	Oct. 15	1919	502	49	388
Plummer, John W., Somerville, assignor to Acme Heel Trimmer Company, Boston, Mass. Rand-trimmer	416,011	Nov. 26	2222	739	49	1314
Plymouth Cordage Company. (See Everson, Charles H., assignor.)						
Pneumatic Dynamite Gun Company. (See Bartlett, Wallace A., assignor.)						
Polcater, Robert E., Indianapolis, Ind. Saw edge and jointer	417,277	Dec. 17	1673	433	49	1718
Poiré, Joseph, St. Joseph de Levis, Quebec, Canada. Flag-staff	412,117	Oct. 1	475	134	49	96
Poland, Charles H. (See Stafford and Poland.)						
Pollard, John W., and J. B. Stockton, Waverly, Mo. Farm-gate	417,325	Dec. 17	1751	472	49	1733
Polk, William Jr. (See Watson and Polk.)						
Pollitt, William S., Crested Butte, Colo. Hoop-stay for buckets, &c.	415,783	Nov. 26	2406	622	49	1245
Pollok, James H., Glasgow, county of Lanark, Scotland. Chlorinating gold ores	415,060	Nov. 12	1332	348	49	1010
Polmatore, William A., Johnstown, N. Y. Shuttle for sewing-machines	418,057	Dec. 24	2-61	732	49	1953
Pond, Clarke P., Olena, Ohio. Bridge-lift	416,422	Dec. 3	401	108	49	1450
Pond, Lucius W., Worcester, Mass. Metal-planing machine	417,084	Dec. 10	1330	378	49	1652
Ponsar, Theodore, Talmage, Nehr. Grain scalper and grader	417,836	Dec. 24	2528	666	49	1889
Ponto, William J., New Rockford, Dak. Ter. Car-coupling	413,540	Oct. 22	2606	676	49	536
Ponton, Archibald C., Viewfield, Parkstone, county of Dorset, assignor to R. L. Mosely and C. Chambers, Hastings, England. Artificial stone	415,794	Nov. 26	2408		49	1245
Poock, Christian. (See Moldenhauer and Poock.)						
Pool, John C., Big Creek, Ga. Plow-fender	413,290	Oct. 22	2542	582	49	457
Pool, Martin S., Buford, Ga. Flat-bottomed boat	412,413	Oct. 8	923	241	49	187
Poole, Cecil P., Lynchburg, Va. Conduit for electric railways	413,731	Oct. 29	2582	751	49	591
Poole, Jesse L., assignor of one-half to P. V. Poole, Martinsville, S. C. Plow-stock	413,622	Oct. 29	2514	733	49	579
Poole, Pierce Y. (See Poole, Jesse L., assignor.)						
Pope, Joseph H., assignor to American Heeling Machine Company, Brockton, Mass. Nail-die for heeling-machines	411,835	Oct. 1	92	25	49	21
Pope, Joseph H., assignor to American Heeling Machine Company, Brockton, Mass. Nail-die for heeling-machines	412,202	Oct. 8	745	194	49	153
Pope Manufacturing Company. (See Copeland, James S., assignor.)						
Pope Manufacturing Company. (See Hunter, David E., assignor.)						
Popp, Hermann, Philadelphia, Pa. Type-casting machine	413,550	Oct. 22	2507	676	49	536
Porous Carbon Wick Company. (See Lytle, Felton M., assignor.)						
Port, Louis, Great Grimsby, county of Lincoln, England. Wheel-fender for tram-cars and other vehicles	417,065	Dec. 10	1382	378	49	1652
Porteus, Robert H. (See Robert H. Porteus, assignor.)						
Porter, C. Herbert. (See Johnson, Albert E., assignor.)						
Porter, Daniel R., assignor to W. F. Goldthwaite, Chelsea, Mass. Pipe-wrench	413,961	Oct. 29	3220	841	49	602
Porter, Edward C., New Haven, Conn. Process of and apparatus for manufacturing car-corners	412,663	Oct. 8	1229	340	49	262
Porter, Edward E., assignor of one-half to W. H. Chatfield, Jr., Cincinnati, Ohio. Wrapping-pasting device	418,058	Dec. 24	2-62	753	49	1953
Porter Electric Messenger Company. (See Edgecomb and Terry, assignors.)						
Porter, Frederick E., Baltimore, Md. Paper-bag-in-the cutter	413,458	Oct. 22	2481	644	49	502
Porter Manufacturing Company. (See Ranton, William J., assignor.)						
Porter, Louis H., Rockdale, Tex. Milk-cooler	416,423	Dec. 3	402	108	49	1450
Porter, Philip C., Berkeley, Mass. Artificial leg	417,593	Dec. 17	2153	573	49	1808
Porter, Rufus, Lewistown, Ill. Milk-scraper	417,581	Dec. 17	2154	573	49	1808
Porter, Thaddeus, assignor of one-half to A. H. McDowell, Waterford, N. Y. Safety-valve and alarm-whistle	415,469	Nov. 19	1967	515	49	1137
Post, Ferdinand, Batou Rouge, La. Nut-lock	412,786	Oct. 15	1465	368	49	304

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Postle, John A. Endicott, assignor of one-half to C. B. Rice, Steele City, Nebr. Implement for deboning cattle	417,790	Dec. 24	2465	649	49	1877
Powton, Clarence E., Fort Smith, Ark. Brick	418,050	Dec. 24	2803	753	49	1874
Potter, Albert H., Geneva, Switzerland, assignor to Trenton Watch Company, Trenton, N. J. Stem winding and setting watch	418,381	Dec. 31	3372	680	49	2061
Potter, Thomas, Jersey City, N. J. Dredging-scraper	412,528	Oct. 8	1105	290	49	225
Pottstown Iron Company. (See Bertrand, Ernst, assignor.)						
Pouill, John, et al. (See De Tanne, Henry, assignor.)						
Poulson, John, Phillipsburg, N. J. assignor to Philadelphia Exhaust Ventilator Company, of Pennsylvania. Power-actuated fan	415,947	Nov. 26	2736	715	49	1296
Powell, Frederick W., London, county of Middlesex, England. Cigar-center	415,061	Nov. 12	1333	348	49	1010
Powell, George W., Moriah, N. Y. Sash-holder	415,892	Nov. 26	2621	626	49	1270
Powell, Nelson, Sterling, Ill. Chicken brooder	417,791	Dec. 24	2465	650	49	1877
Powell, William C., Corry, Pa. Siegel	416,643	Dec. 3	739	201	49	1517
Powers, Luray C., Somerville, assignor to Lamson Cash Railway Company, Boston, Mass. Store-service buffer	412,790	Oct. 29	2969	774	49	607
Powers & Walker Casket Company. (See Walker, Joseph H., assignor.)						
Powers, William P., La Crosse, Wis. Thermostat	416,947	Dec. 10	1178	322	49	1611
Prahn, Adolph F., Indianapolis, Ind. Signal-lantern	412,805	Oct. 15	1640	428	49	333
Prange, Herman H., assignor of two-fifths to G. C. McNeil, Akron, Ohio. Boiler	412,118	Oct. 1	477	134	49	96
Pratt, Charles A., Toledo, Ohio, assignor to Pratt Steel Company, Birmingham, Ala. Apparatus for smelting ores	413,551	Oct. 22	2612	676	49	527
Pratt, Charles B., Boston, Mass. Clutch appliance for elevators	417,046	Dec. 10	1384	379	49	1652
Pratt, Charles R., Boston, Mass. Elevator	417,067	Dec. 10	1386	379	49	1653
Pratt, Frank A. (See Wehner and Pratt.)						
Pratt, Herbert L., Lewiston, Me. and C. T. Upton, Lowell, Mass. Machine for winding yarn from chain onto filling-bobbins	416,495	Dec. 3	508	128	49	1471
Pratt, Jedediah A., Portland, Me. Paper-box machine	414,822	Nov. 12	977	252	49	940
Pratt, Lucius H. (See Conrad, Frank P., assignor.)						
Pratt, Nat. W., Brooklyn, N. Y. Sectional steam-boiler	415,976	Nov. 26	2774	726	49	1304
Pratt, Nathaniel A., Atlanta, Ga., assignor to Pratt Steel Company, Birmingham, Ala. Apparatus for smelting ores	413,551	Oct. 22	2612	676	49	527
Pratt, Nathaniel A., Atlanta, Ga., assignor to Pratt Steel Company, Birmingham, Ala. Smelting iron ores	413,552	Oct. 22	2612	677	49	527
Pratt, Nathaniel W., Brooklyn, N. Y. Water-gate	412,787	Oct. 15	1485	388	49	304
Pratt, Philip W. (See Cowen and Pratt.)						
Pratt, Robert J. (See Robison, Joseph, assignor.)						
Pratt, Robert J., and J. Robison, Greenlush, N. Y. Valve	416,948	Dec. 10	1180	322	49	1611
Pratt Steel Company. (See Pratt, Nathaniel A., assignor.)						
Pratt & Whitney Company. (See Cooley, Charles H., assignor.)						
Pratt & Whitney Company. (See Woodbridge, James E., assignor.)						
Prenter, William (See Best, Edward, assignor.)						
Prentice, Vernon F., Worcester, Mass. Metal-turning lathe	418,282	Dec. 31	3374	880	49	2061
Prentice, Vernon F., Worcester, Mass. Drilling-machine	418,283	Dec. 31	3376	880	49	2062
Prentiss, George P., assignor of one-third to T. J. Pell, Lewisport, Ky. Rotary harrow	413,630	Oct. 32	2733	704	49	553
Prentiss, Henry S., New York, N. Y. Clock-movement and the like	416,094	Dec. 10	971	294	49	1508
Prentiss, Henry S., New York, N. Y. Electric cam	417,742	Dec. 24	2287	625	49	1861
Prentiss Ice Company. (See Kenney, James, assignor.)						
Prescott, De Witt C., Mariette, W. and S. W. Band-saw mill	416,012	Nov. 6	9823	740	49	1315
Priesley, Frank E. (See Brown, Joseph N., assignor.)						
Preston, Charles A., Cambridgeport, Mass. Security bag or pouch	414,253	Nov. 5	111	36	49	760
Preston, Edward F. (See Preston, William W. and E. F.)						
Preston, Everett B., Chicago, Ill. Fire-ladder truck	411,929	Oct. 1	281	57	49	46
Preston, Everett B., Chicago, Ill. Turn-table extension-ladder truck	414,578	Nov. 5	606	156	49	800
Preston Ice Creepers Company. (See Preston, William W. and E. F., assignors.)						
Preston, William P., E. J. Hadner, and J. J. Kelley, New York, N. Y., said Kelley assignor to said Preston and Hadner. Revolving drier for desiccating brewers' grains, &c.	412,520	Oct. 8	1105	290	49	225
Preston, William P., and J. J. Kelley, Brooklyn, said Kelley assignor to said Preston and F. J. Hadner, New York, N. Y. Press for extracting moisture from brewers' grains	413,683	Oct. 29	2815	733	49	578
Preston, William W. and E. F., Bismarck, Mich. assignors to Preston Ice Creepers Company, Chicago, Ill. Dropping stopper for medicine-bottles	412,788	Oct. 15	1487	388	49	305
Preston, William W. and E. F., Bismarck, Mich. assignors to Preston Ice Creepers Company, Chicago, Ill. Machine for attaching metal plates	413,341	Dec. 31	3311	866	49	2049
Pretzinger, Hermann. (See Schardt and Lutzenberger, assignors.)						
Price, Abner J., Butler, Ind. Attachment for chisels	414,121	Oct. 29	3461	899	49	712
Price, George B., Philadelphia, Pa. Pressure-governor	412,293	Oct. 8	745	194	49	154
Price, George W., assignor, by mesne assignments, to Eureka Box Company, Baltimore, Md. Coin-box	416,496	Dec. 3	511	139	49	1471
Price, Isaac T., Holton, Kans. Sash-fastener	414,579	Nov. 5	610	159	49	861
Price, Oliver C., and A. Bittong, Philadelphia, Pa. Book case or stand	414,580	Nov. 5	612	160	49	861
Price, Walter, Lyons, Nebr. Corn-planter attachment	412,540	Oct. 8	1108	290	49	226
Price, William H., Jr., assignor to Chandler & Co., Cleveland, Ohio. Composing-stick	414,354	Nov. 5	113	35	49	760
Prickett, Fernando F. (See Parsons and Prickett.)						
Friday, Henry, Houston, Tex. Gate	412,259	Oct. 15	1588	414	49	323
Primmore, Henry E., assignor to McCormick Harvesting Machine Company, Chicago, Ill. Sheaf-carrier	418,222	Dec. 31	3123	819	49	2012
Priestley, John H., Meriden, Iowa. Potato-digger	417,863	Dec. 24	2395	684	49	1901
Prindle, Franklin C., Wilmington, N. C. Retort-lid	416,855	Dec. 10	1049	282	49	1584
Pringle, George D., Guelph, Ontario, Canada. Hand-stamp	417,278	Dec. 17	1074	453	49	1712
Prinz, Faust, Milwaukee, Wis. Grain-separator	418,367	Dec. 31	3689	964	49	2126
Prinz, Faust, Milwaukee, Wis. Shaking screen	418,368	Dec. 31	3692	965	49	2126
Pritchard Brake Company. (See Pritchard, Nathaniel J., assignor.)						
Pritchard, Nathaniel J., assignor to Pritchard Brake Company, Roanoke, Va. Hose-compiling	415,062	Nov. 12	1334	349	49	1010
Probert, Hubert F., assignor of one-half to Sheffield Velocipede Car Company, Three Rivers, Mich. Hydraulic-valve mechanism	412,789	Oct. 15	1488	389	49	305
Proctor, Josiah K., and J. H. Knowles, Philadelphia, Pa., assignors to Philadelphia Textile Machinery Company. Drying-machine	411,536	Oct. 1	93	25	49	21

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.
			Spec.	Draw.	
Promis, Eugene, Philadelphia, Pa. Combined pencil-rack and tablet-holder	412,541	Oct. 8	1109	290	49 226
Prosser, Treat T., Lake Side, Ill., assignor, by mesne assignments, to himself, A. A. Griffith, Jr., and F. S. Osborne. Steam-brake	413,631	Oct. 22	2735	709	49 553
Prouty, James K., Spencer, Mass. Nail-strip	413,175	Nov. 12	1235	395	49 1040
Pryor, James A., See Culbertson, John L., assignor.					
Pudan, Thomas A., Sacramento, Cal. Plate or dish washer	414,446	Nov. 5	413	104	49 823
Pueschel, Paul, Milwaukee, Wis. Two-wheeled vehicle	412,639	Oct. 1	375	96	49 76
Puffer, Alvin D., Medford, Mass. Soda-water-draft apparatus	418,223	Dec. 31	3125	830	49 3012
Puffer, Alvin D., Medford, assignor to A. D. Puffer & Sons Manufacturing Company, Boston, Mass. Soda-water fountain	415,883	Nov. 26	2622	686	49 1270
Puffer & Sons Manufacturing Company, A. D. (See Puffer, Alvin D., assignor.)					
Pullman, Harry B., assignor to Woley Electric Company, Cambridge, Ohio. Electric motor	413,350	Nov. 19	1807	470	49 1160
Pummill, William, Manchester, Ind. Road-car	417,792	Dec. 24	2467	650	49 1877
Pumpelly, James K. (See Covey and Pumpelly.)					
Pumpelly, James K., assignor to F. D. Thomason, Chicago, Ill. Secondary battery	416,289	Dec. 3	920	57	49 1412
Pumpelly, James K., assignor of one-half to F. D. Thomason, Chicago, Ill. Preparing electrodes for secondary batteries	417,088	Dec. 10	1388	379	49 1533
Pumphrey, Robert B., Baltimore, Md. Meat-cutter	413,459	Oct. 22	2482	644 645	49 502
Purcell, William. (See Nolan and Anderson, assignors.)					
Purdy, B. B. (See Harris, William E., assignor.)					
Purdy, William J., assignor of two-thirds to J. P. Anderson and R. H. D. S. Montagu, Carberry, Manitoba, Canada. Bucket-elevator for flouring-mills	415,819	Nov. 26	2531	661	49 1252
Puterbaugh, John W., Clarinda, Iowa. Fence-machine	417,279	Dec. 17	1675	433	49 1718
Putnam, George B., Boston, Mass. Combined cane and camp-stool	413,962	Oct. 29	3221	841	49 862
Pyte, John. (See Campbell and Pyte.)					
Ramsley, Julius, Berlin, Germany. Lacuoli powder	415,351	Nov. 19	1808		49 1100
Quintman, Frederick W., Norwalk, Conn., assignor to H. B. Ives & Co. Window or door button	415,652	Nov. 19	2228	596	49 1196
Rabe, John H., St. Louis, Mo. Whiffletree-hook	417,565	Dec. 17	2155	573	49 1808
Rabenstein, George. (See Sealey and Rabenstein, assignors.)					
Raber, Nathan L., Corvallis, Oreg. Amalgamator	414,581	Nov. 5	614	160 161	49 862
Racine, Levin, Hillsdale, Mich. Shaft coupling or clutch	415,633	Nov. 19	2229	597	49 1196
Radian, William, Austin, Tex. Apparatus for impregnating liquids with gases	412,664	Oct. 8	1302	340	49 362
Radcliffe, Charles, Newark, N. J. Button	417,639	Dec. 24	2620	709	49 1920
Radcliffe, Charles, Newark, N. J. Button	417,940	Dec. 24	2691	709	49 1920
Radcliffe, Charles, Newark, N. J. Button	417,941	Dec. 24	2693	709	49 1920
Rady, John P., Albany, N. Y. Fire-light ignitor	415,844	Nov. 26	2568	670	49 1259
Radsapinner, Veltus, Cincinnati, Ohio, assignor of one-half to W. W. Burt, Peoria, Ill. Fine scraper	415,292	Nov. 19	1602	438	49 1079
Radvanyi, Emerich, Buda-Pesth, Austria-Hungary. Siphon-head	417,326	Dec. 17	1752	472	49 1733
Rae, Frank B., assignor to Detroit Electrical Works, Detroit, Mich. Compound dynamo-electric machine	417,080	Dec. 10	1389	380	49 1554
Raffel, Isaac G., Baltimore, Md. Combined book-strap and scholar's companion	417,942	Dec. 24	2694	709	49 1920
Rahn, Johan and P. Racine, Wis. Straw-cutter	412,040	Oct. 1	376	97	49 76
Rahn, Peter. (See Rahn, Johan and P.)					
Rakes, Charles, and J. H. Eilers, Lockport, N. Y., said Eilers assignor to said Rakes. Device for clearing the gratings of mill-races	414,887	Nov. 12	1085	278	49 960
Rammsey, Albert, Berlin, Germany. Button or stud	413,763	Oct. 29	2927	763	49 600
Ramsey, William L., Knoxville, Tenn. Lathe-tool rest	416,644	Dec. 3	740	201	49 1517
Ramsberger, Hermann G., New York, N. Y. Flash-light ignitor	412,750	Oct. 15	1480	389	49 305
Rand, Edson L., Goffstown, N. H. Oiler	416,949	Dec. 10	1182	322	49 1611
Rand, William T., Lowell, assignor to Lamson Cash Railway Company, Boston, Mass. Switch for store-service apparatus	414,750	Nov. 12	915	236	49 928
Randall, Parry L., Portsmouth, N. H. Fire-kindler	415,734	Nov. 26	2413	631	49 1229
Randel, Charles D. (See Griswold and Randel.)					
Randlett, Reuben A., and F. W. Smith, Topeka, Kans. Car-coupling	415,334	Nov. 19	1776	461	49 1005
Randolph, Alfred. (See Babblitt and Randolph.)					
Rank, Anthony H., Philadelphia, Pa. Locomotive	417,566	Dec. 17	2157	576	49 1809
Rankin, Ransom F., et al. (See Growlth, Henry, assignor.)					
Ranney, Fred E., Belding, Mich., assignor to Belding Manufacturing Company, Chicago, Ill. Refrigerator	412,060	Dec. 24	2684	713	49 1854
Ransome, Ernest L., San Francisco, Cal. Concrete-mixing machine	416,950	Dec. 10	1183	322	49 1611
Ransom, William J., assignor to Porter Manufacturing Company, (limited,) Syracuse, N. Y. Boiler	414,167	Oct. 29	3334	923	49 727
Ranton, William J., assignor to Porter Manufacturing Company, (limited,) Syracuse, N. Y. Constructing boilers	414,168	Oct. 29	3336	923	49 727
Ray, Service Store Railway Company. (See Wilkowsky, August F. L., assignor.)					
Rapid Service Store Railway Company. (See Yoe, Henry, assignor.)					
Rassant, Leo, et al. (See Fay, Benjamin F., assignor.)					
Rathburn, Edward W., Deseronto, Ontario, Canada. Kiln for making charcoal	413,306	Oct. 22	2968	590	49 461
Rathbun, S. William. (See Rathbun, Joseph, Jr., assignor.)					
Rau, Emanuel, assignor to E. Rau Manufacturing Company, New York, N. Y. Mechanical movement	413,791	Oct. 29	2970	774	49 608
Rau Manufacturing Company, Emanuel. (See Rau, Emanuel, assignor.)					
Rawlings, Edward L., Memphis, Tenn. Game apparatus	418,061	Dec. 24	2825	734	49 1954
Rawson, George W., Cambridge, Mass. Apparatus for handling coal	411,902	Oct. 1	187	48	49 38
Ray, Albert D., Elgin, Ill. Device for stropping razors	414,447	Nov. 5	414	104	49 823
Ray, George R., Manistee, Mich. Mechanism for reciprocating the log-carriages of saw-mills	412,119	Oct. 1	478	125	49 96
Ray, George R., Manistee, Mich. Mechanism for reciprocating saw-mill carriages	412,791	Oct. 15	1491	389	49 305
Ray, Jean B., and E. Depay, assignors to Société Neyron Cahen & Compagnie, Lyons, France. Glove	411,990	Oct. 1	317	82, 83	49 65
Raymond, Albert. (See Raymond, George and A.)					
Raymond Brothers Impact Pulverizer Company. (See Raymond, George and A., assignors.)					
Raymond, Charles W., Dayton, Ohio. Brick-pressing machine	417,837	Dec. 24	2530	666 667	49 1889
Raymond, Freeborn F., 2d. (See Small, Chester C., assignor.)					
Raymond, Freeborn F., 2d, Newton, Mass. Heel-nailing machine	412,414	Oct. 8	925	342 343	49 187
Raymond, Freeborn F., 2d, Newton, Mass. Spring-heel boot or shoe	412,896	Oct. 15	1641	422	49 333
Raymond, Freeborn F., 2d, Newton, Mass. Heel forming and loading machine	413,533	Oct. 22	2615	677 678	49 928

Alphabetical list of patentees, October to December, inclusive—continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Page.	Dr.	Vol.	Page.
Raymond, Freeborn F., 2d, Newton, Mass. Nail-machine	413,554	Oct. 22	9617	678 679 680 681	49	529
Raymond, Freeborn F., 2d, Newton, Mass. Nail making and distributing machine	413,555	Oct. 22	9621	841 842 843	49	529
Raymond, Freeborn F., 2d, Newton, Mass. Attaching heels to boots or shoes	413,963	Oct. 29	3222	842 843	49	603
Raymond, Freeborn F., 2d, Newton, Mass. Nail-making machine	413,964	Oct. 29	3223	842 843	49	603
Raymond, Freeborn F., 2d, Newton, Mass. Heel-nailing machine	414,448	Nov. 5	415	105	49	824
Raymond, Freeborn F., 2d, Newton, Mass. Nail making, distributing, and driving machine	414,582	Nov. 5	618	161 162 163	49	863
Raymond, Freeborn F., 2d, Newton, Mass. Nail making, distributing, and driving machine	414,952	Nov. 12	1177	307 308	49	978
Raymond, Freeborn F., 2d, Newton, Mass. Heel-machine	415,550	Nov. 19	2143	539 540 541	49	1109
Raymond, Freeborn F., 2d, Newton, Mass. Compressing and attaching heels	415,560	Nov. 19	2145	540 541	49	1170
Raymond, George and A., assignors to Raymond Brothers Impact Pulverizer Company, Chicago, Ill. Pulverizer	415,421	Nov. 19	1906	496	49	1130
Raymond, George E., Grand Rapids, Mich. Vehicle-spring	412,005	Oct. 8	1303	340	49	202
Raymond, Silas H., assignor to Standard Buggy Spring Company, Grand Rapids, Mich. Vehicle-spring	415,299	Nov. 19	1730	448	49	1085
Rayney, John, Brooklyn, N. Y. Baker's oven	415,470	Nov. 19	1988	515 516	49	1137
Rea, Edmund K., Cowgill, Mo. Device for holding the heads of cattle	417,280	Dec. 17	1678	454	49	1719
Read, David M. (See Read, Frederick W., assignor.)						
Read, Frederick W., assignor of one-half to D. M. Read, Bridgeport, Conn. Two-ply Ingrain carpet fabric	417,090	Dec. 10	1391	380	49	1654
Reader, John E., Brooklyn, N. Y.	417,441	Dec. 17	1914	511	49	1753
Readman, James B., Edinburgh, county of Mid-Lothian, Scotland. Obtaining phosphorus	417,943	Dec. 17	3035	710	49	1900
Reagan, Daniel E., Terre Haute, Ind. Saab holder	416,645	Dec. 3	741	291	49	1517
Reagan, Joseph M., Meriden, Conn. assignor to Duff Electric Light Company, of New York. Trolley for electric railways	414,593	Nov. 5	632	162	49	864
Reardon, George W., Sumner, S. C. Cotton-chopper	417,944	Dec. 24	3236	710	49	1921
Record, George J., Conneaut, Ohio. Removable hinge and cover for sap-pails	417,221	Dec. 17	1679	454	49	1719
Redfield, Casper L., Minneapolis, Minn., assignor, by mesne assignments, to Chicago Matrix Machine Company. Type die for matrix making	416,740	Dec. 10	880	238	49	1351
Redfield, Casper L., Minneapolis, Minn., assignor, by mesne assignments, to Chicago Matrix Machine Company. Impression device for matrix-making machines	416,741	Dec. 10	882	238	49	1352
Redfield, Casper L., Minneapolis, Minn., assignor, by mesne assignments, to Chicago Matrix Machine Company. Chinking device for matrix-making machines	416,742	Dec. 10	883	238	49	1352
Redfield, Casper L., Minneapolis, Minn., assignor, by mesne assignments, to Chicago Matrix Machine Company. Escapement device for matrix-making machines	416,743	Dec. 10	884	238	49	1352
Redfield, Casper L., Minneapolis, Minn., assignor, by mesne assignments, to Chicago Matrix Machine Company. Feed device for matrix-making machines	416,744	Dec. 10	885	239	49	1353
Redfield, Casper L., Minneapolis, Minn., assignor, by mesne assignments, to Chicago Matrix Machine Company. Variable feed mechanism for matrix-making machines	418,295	Dec. 31	3232	846	49	3033
Redford, Robert. (See Lever, Henry, assignor.)						
Redlinger, Michael, assignor to Devore & Henney Company, Freeport, Ill. Foot-power hammer	417,301	Dec. 10	1558	423 424	49	1686
Redmond, B. J., et al. (See Crary, Thomas F., assignor.)						
Redmond, John A., et al. (See Crary, Thomas F., assignor.)						
Redwood, Charles, Denison City, Tex. Elastic chain	416,407	Dec. 3	513	139	49	1471
Reese, John, Boston, Mass. Sewing-machine for finishing button-holes	415,977	Nov. 26	2777	727	49	1304
Reed & Co., D. C. & H. C. (See McMahon, James, assignor.)						
Reed, Emma A. (See McIntire, Oliver K., assignor.)						
Reed, George P., Melrose, Mass. Clock-pendulum	415,735	Nov. 26	2414	631	49	1320
Reed, James W. and C. H. Martien, Sioux Falls, S. D. Paper-pulp machine	417,282	Dec. 17	1681	454 455	49	1719
Reed, John D., Boston, Mass. Rail-supporting bar for street-railways	417,283	Dec. 17	1682	455	49	1720
Reed, Paul D. (See Cook, William, assignor.)						
Reeder, Jacob, Fresno City, Cal. Insecticide	413,732	Oct. 29	2283		49	501
Reeder, William S., assignor to Kingsland & Douglas Manufacturing Company, St. Louis, Mo. Shuck-corn sheller	413,556	Oct. 22	9623	681	49	530
Reekie, James D., Duluth, Minn. Block-cutting machine	417,367	Dec. 17	1816	487	49	1744
Reese, Jacob, Pittsburgh, Pa. Crystalline calcic tetraphosphate and making the same	412,792	Oct. 15	1494		49	306
Reese, Jacob, Pittsburgh, Pa. Making phosphoric acid	412,793	Oct. 15	1494		49	306
Reese, Jacob, Pittsburgh, Pa. Incandescent lamp	415,335	Nov. 19	1777	462	49	1292
Reeves, George R., Grand Rapids, Mich. Dust-collector	416,124	Nov. 26	3029	728	49	1333
Regan, Daniel S., San Francisco, assignor to himself and S. S. Bennett, Alameda, Cal. Carburator for gas engines	415,978	Nov. 26	2777	727	49	1305
Regester, Thomas L., Tekamah, Neb. Windmill-governor	417,503	Dec. 17	3209	739	49	1783
Rehfuess, George J. G. and M. O., Philadelphia, Pa. Carrier for pneumatic transit apparatus	413,557	Oct. 22	9624	681	49	530
Rehfuess, George, M. O. and J. G., assignors to H. D. Fusti, Philadelphia, Pa. Tool-holder	414,078	Oct. 29	3401	894	49	699
Rehfuess, John G. (See Rehfuess, George, M. O. and J. G.)						
Rehfuess, John G. (See Rehfuess, George, M. O. and J. G.)						
Rehfuess, Martin O. (See Rehfuess, George, M. O. and J. G.)						
Rehfuess, Martin O. (See Rehfuess, George, M. O. and J. G.)						
Reichenbach, Henry M., assignor to German Dry Plate and Film Company, Rochester, N. Y. Manufacture of flexible photographic films	417,202	Dec. 10	1561	494	49	1687
Reichert, Adam, assignor of one-half to J. Cox, Tiffin, Ohio. Machine for shocking and binding corn	412,220	Oct. 1	637	166	49	127
Reid, Arthur B., Chicago, Ill. Type-writing machine	415,063	Nov. 12	1336	349	49	1010
Reid, Caled C., New Burdette, Ill. Burglar-alarms	413,407	Oct. 29	3077	801	49	629
Reid, Charlie R., Meridian, Miss. Seed-planter	415,062	Dec. 24	2969	754	49	1954
Reid, John, Yonkers, assignor to J. L. Mott Iron Works, New York, N. Y. Porcelain wash-out closet	416,876	Dec. 10	1051	283	49	1545
Reid, Joseph, Oil City, Pa. Hydrocarbon burner	414,079	Oct. 29	3402	894	49	700
Reid, Robert H. (See Sharpe, John, assignor.)						
Reid, Thomas J., Gananoque, Ontario, Canada, assignor of one-half to G. H. Burrows, Cincinnati, Ohio. Vehicle-hub	416,073	Nov. 26	2926	763	49	1335
Reidy, Thomas, Quincy, Ill. Platform scale	414,594	Nov. 5	623	163	49	864
Reiff, Gustavus N., Easton, Pa. Railway semaphore signal	416,074	Nov. 26	2928	763	49	1335

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.
			Page.	Page.	
Reiff, Gustavus N., Easton, Pa. Railway signal apparatus	416,646	Dec. 3	742	991 302	49 1517
Reiff, William H., assignor of one-half to C. H. Haentze, Philadelphia, Pa. Apparatus for games	416,686	Dec. 3	800	218	49 1528
Reilly, John C. (See Root, Howard C., assignor.)					
Reilly, John P., assignor of one-half to O. C. Paul, St. Louis, Mo. Sign	416,075	Nov. 26	9929	764	49 1335
Reinemer, Henry G., and R. Lang, Pierson, Ill. Three-horse evener	417,061	Dec. 10	1393	380	49 1654
Reinherz, Therese, Munich, Bavaria, Germany. Preserving natural flowers	417,284	Dec. 17	1684		49 1720
Reisert, Michael E., assignor to Henseler Maschinenfabrik, C. Reuther & Reisert, Hennen, Prussia, Germany. Automatic weighing apparatus	414,080	Oct. 29	3404	884 885	49 700
Reisinger, Jacob, assignor of one-half to O. E. Collins, Toledo, Ohio. Music-leaf turner	414,870	Nov. 19	1052	971	49 954
Reitz, Daniel G., Berlin, Pa. Dust-collector	415,368	Nov. 19	1826	476	49 1104
Reliable Printing and Blank Book Manufacturing Company. (See Dickleson, James W., assignor.)					
Rembert, Henry, Willis, assignor of one-half to D. M. Campbell, Montgomery County, Tex. Machine for folding and compressing cotton-batting	417,092	Dec. 10	1395	380	49 1655
Remington, Charles R. (See Victory, Edmund, assignor.)					
Remington Machine Company. (See Stevens, Arthur L., assignor.)					
Remus, Carl T., assignor to J. Scherbel, Dresden, Saxony, Germany. Machine for making metal corner-fastenings for boxes	417,337	Dec. 17	1733	472 473	49 1733
Remus, Theodor, assignor to J. Scherbel, Dresden, Saxony, Germany. Attaching angle-binding strips to paper-box blanks	417,387	Dec. 17	2158	574 575	49 1809
Rernard, Rudolph W., Hogsstown, Pa. Hay rake and loader	412,924	Oct. 8	747	195	49 154
Rench, Edwin. (See Patterson, Grimes, and Rench.)					
Reno, Jesse W., Denver, Colo. Electrical-railway conduit and current-plow	412,666	Oct. 8	1304	341 342 343	49 262
Renton, Henry T., Oakland, Cal. Machine for making slit-and-wire fencing	417,304	Dec. 17	2021	540	49 1784
Renwick, William W., Millburn, N. J. Roof	418,296	Dec. 31	3235	846	49 2034
Repelevski, Max A., New York, N. Y. Folding lunch-box	414,595	Nov. 5	623	163	49 864
Requa, Elias B., Jersey City, N. J. Lamp	416,153	Dec. 3	51	16	49 1379
Reuschel, William, assignor to L. J. Lehman and T. Schmitt, Cleveland, Ohio. Hanger for joists	414,109	Oct. 29	3337	983	49 737
Reyer, Charles G., and A. W. Sidesinger, Bellefontaine, Ohio. Hip attachment for boots	413,149	Oct. 15	2019	536	49 407
Reynolds, Charles D. (See Moore, Samuel, assignor.)					
Reynolds, Daniel, Croton, Ohio. Running-gear for vehicles	418,224	Dec. 31	3127	830 831	49 2013
Reynolds, Dayton D., Englewood, assignor to United States Street Sweeper Company, Chicago, Ill. Track-cleaner	418,063	Dec. 31	2867	754	49 1954
Reynolds, Howard W., assignor of one-half to N. E. Stoneburn, Rochester, N. Y. Shawl-strap	412,295	Oct. 8	749	196	49 154
Reynolds, John E., assignor of one-half to P. E. Gunler, Dayton, Ohio. Cash-register	416,125	Nov. 26	3031	788	49 1354
Reynolds, John H., assignor to H. P. Hamel, Chicago, Ill. Sheet-delivery mechanism for printing-presses	417,824	Dec. 24	2597	684	49 1062
Reynolds, Samuel W., Toledo, Ohio. Metallic fastener for tobacco	414,845	Nov. 12	1023	264	49 949
Reynolds, Stephen H. (See Hood and Reynolds.)					
Reynolds, Walter S., Clayton, Del. Two-roll holder and enter	414,823	Nov. 12	979	253	49 940
Rhein, Karanangh B. (See Eldred and Rhein.)					
Rhett, Charles H., Baltimore, Md. T-pawl sewer-gas trap	413,307	Oct. 22	2269	590	49 462
Rhenbomott & Teall Manufacturing Company. (See Brock, William R., assignor.)					
Rhind, Frank, assignor of one-half to E. Miller & Company, Meriden, Conn. Argand burner	416,226	Dec. 3	121	34	49 1392
Rhind, Frank, assignor of one-half to E. Miller & Company, Meriden, Conn. Argand lamp	416,237	Dec. 3	123	34	49 1392
Rhodes, Charles M. (See Edgerton, Nathan H., assignor.)					
Rhodes, Jay B., assignor of one-half to E. B. Day, Kalamazoo, Mich. Rotary engine	414,255	Nov. 5	114	36	49 760
Rhodes, Jay B., assignor of one-half to J. F. Phillips, Kalamazoo, Mich. Loose-pulley lubricator	414,898	Nov. 12	1086	278	49 960
Rhodes, Joseph M., assignor to S. S. Rhodes, Covington, Ind. Combined plate-holder and printing-frame	418,064	Dec. 24	2870	755	49 1955
Rhodes, Joseph M., assignor to S. S. Rhodes, Covington, Ind. Plate-holder for cameras	418,065	Dec. 24	2872	755	49 1956
Rhodes, Susan S. (See Rhodes, Joseph M., assignor.)					
Rhoneuma, Harry A., and C. Lobes, Springfield, Ohio. Horseshoe	415,795	Nov. 26	2499	632	49 1245
Rice, Charles B. (See Postle, John A., assignor.)					
Rice, Charles B., assignor to Rice & Whitacre Manufacturing Company, Chicago, Ill. Oscillating steam-engine	413,965	Oct. 29	3225	843	49 663
Rice, Charles I., Worcester, Mass. Puzzle	416,341	Dec. 3	389	76	49 1436
Rice, Charles L., East Granite Falls, Minn. Device for detaching horses	413,897	Oct. 15	1612	429	49 333
Rice, David H., Brookline, Mass. Fruit-squeezer	413,244	Oct. 22	2164	563	49 441
Rice, Edwin W., Jr. (See Lynn, Mass. Shad-holder)					
Rice, Edwin W., Jr., Lynn, Mass. Shad-holder	416,745	Dec. 10	887	239	49 1553
Rice, Edwin W., Jr., Lynn, Mass. Coupling electric motors	416,746	Dec. 10	888	239	49 1553
Rice, Edwin W., Jr., and A. L. Rohrer, Lynn, Mass. Station switch-board and connection	411,930	Oct. 1	222	57	49 46
Rice, John H., Henderson, Ky., Ill. Day-cap	416,747	Dec. 10	890	240	49 1553
Rice, Lewis J., Indianapolis, Ind. Self-closing faucet	412,542	Oct. 8	1110	291	49 286
Rice, Lewis J., Indianapolis, Ind. Hose-coupling	418,225	Dec. 31	3139	821	49 2013
Rice & Whitacre Manufacturing Company. (See Rice, Charles B., assignor.)					
Rice, William H., Addison, N. Y. Foot-brace for row-boats	413,558	Oct. 22	2655	692	49 530
Rich, Abraham L., Allegheny, Pa. Hot-water locomotive for tramways	417,505	Dec. 17	2024	540	49 1754
Rich, Elisha B., Chicago, Ill. Saw-sharpening machine	416,748	Dec. 10	891	240	49 1553
Rich, Henry M. (See Taft, Edward L., assignor.)					
Richards, Charles E., Brooklyn, N. Y. Coffin-fastener	414,826	Nov. 5	216	54	49 782
Richards, Charles E., Brooklyn, N. Y. Burial-casket	418,473	Dec. 31	3508	918	49 2089
Richards, Edgar G. (See Osborn and Richards.)					
Richards, Francis H., Springfield, Mass. Water-marker for paper-making machines	412,704	Oct. 15	1496	390	49 306
Richards, Francis H., Hartford, Conn. Screw-threading machine	415,845	Nov. 26	2469	670	49 1250
Richards, Francis H., Hartford, Conn. Screw-tapping machine	415,846	Nov. 26	2570	671	49 1259
Richards, Frank P., Edinburg, Ill. Reel for check-row planters	417,793	Dec. 24	2468	650	49 1878
Richards, Horace J., Watervliet, N. Y. Oil-can	416,345	Dec. 3	290	76	49 1426
Richards, James, Buckhannon, assignor of one-half to J. I. Gaston, Zimma, W. Va. Rack for growing plants	417,838	Dec. 24	2534	697	49 1890
Richards, John W., and J. B. Hall, Newark, N. J. Conduit for electric wires	414,327	Nov. 5	217	55	49 782
Richards, Lucius J., Philadelphia, Pa. Coffee or tea pot	412,667	Oct. 8	1309	342	49 364
Richards, William, Mayburg, Pa. Sand-reel for drilling-machines	413,733	Oct. 29	2884	732	49 591

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Richards, William, Mayburg, Pa. Gudgeon for drilling-machine sand-reels.....	415,925	Nov. 26	2701	705	49	1298
Richardson, Charles M., Morris, Conn. Tag-fastener.....	413,979	Nov. 26	2772	727	49	1305
Richardson, Dwight S., Brooklyn, N. Y. Hot-air furnace.....	412,960	Nov. 13	1589	414	49	323
Richardson, Dwight S., Brooklyn, N. Y. Hot-air furnace.....	415,920	Nov. 26	2532	661	49	1252
Richardson, Dwight S., Brooklyn, N. Y. Hot-water heating apparatus.....	418,529	Dec. 31	3695	962	49	2127
Richardson, Everett P., Lawrence, Mass., assignor to Stanley Manufacturing Company, Portland, Me. Sole-sewing machine.....	415,064	Nov. 12	1303	349	49	1012
Richardson Frank A., assignor to E. Converse and A. T. Matthews, Worcester, Mass. Garment-supporting clasp.....	413,792	Oct. 29	2970	774	49	608
Richardson, George, Washington, D. C. Apparatus for hardening artificial stone.....	413,963	Oct. 22	2190	571	49	417
Richardson, Rosell L., Coteville, Pa. Water-wheel.....	415,125	Nov. 12	1420	371	49	1028
Lampasas Springs, Tex. Shearing-machine.....	413,208	Oct. 22	2113	550	49	451
Richardson, George L., Brunswick, Me. Bearing for turbine wheels.....	417,588	Dec. 17	2160	575	49	1809
Richardson, George L., Brunswick, Me. Fire-kindler.....	417,588	Dec. 17	2160	575	49	1809
Richardson, John L. (See Allen, Robert, assignor.)						
Richardson, John T., Harrisburg, assignor of one-half to A. H. Ege, Mechanicsburg, Pa. Railroad-frog.....	417,506	Dec. 17	2036	549	49	1785
Richardson, John T., Harrisburg, assignor of one-half to A. H. Ege, Mechanicsburg, Pa. Spring-frog.....	417,507	Dec. 17	2027	541	49	1785
Richardson, Leonard (See Eland, Edwin, assignor.)						
Richardson, Milo A. and R. L., New York, N. Y. Baby-walker.....	417,439	Dec. 24	2535	607	49	1800
Richardson, Robert D., Winnipeg, Manitoba, Canada. Pencil-sharpener.....	419,006	Dec. 24	2874	735	49	1536
Richardson, Rufus W., Honesville, W. Va. Seed-planter.....	416,498	Dec. 3	513	140	49	1472
Richardson, William S., Boston, Mass. Glove-fastening.....	412,296	Oct. 8	751	196	49	154
Richardson, William S., Boston, Mass. Fastening for gloves.....	412,668	Oct. 8	1309	312	49	304
Richmond, Cassius M., assignor to International Tooth Crown Company, New York, N. Y. Artificial tooth-crown.....	414,995	Nov. 12	1239	323	49	991
Richmond, Charles C., Boston, Mass. Box-fastening.....	413,945	Oct. 22	2165	561	49	441
Richmond City Mill Works. (See Walters, Charles F., assignor.)						
Richmond, Jewett M., et al. (See Cooley, William H., assignor.)						
Richter, Henry J. C. (See Wirtz and Richter.)						
Richter, Henry J. C. (See Wirtz, Richter, and Wirtz.)						
Richter, Max E., Fort Wayne, Ind. Rotary vegetable-cutter.....	415,847	Nov. 26	2573	672	49	1260
Richter, Paul E. (See Jung, Frederick H., assignor.)						
Ricker, Joseph H., Lock Haven, Pa. Sectional boiler.....	417,508	Dec. 17	2029	541	49	1785
Ricketts, George E., Goshen, Ind. Brush for moistening the sheets of copying-books.....	412,120	Oct. 1	479	125	49	97
Riddle, J. G., et al. (See Stephenson, Elam G., assignor.)						
Riddle, Lorin P., Ashland, Ohio. Blackboard-eraser.....	416,184	Dec. 3	53	16	49	1379
Riddle, William (See Chappell, Florence J. D., assignor.)						
Rider, Henry, Wellington, county of Northampton, England, assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Apparatus for the transport of material.....	416,300	Dec. 3	321	57, 58	49	1412
Ridge, John, Nashua, N. H. File or rasp.....	416,805	Dec. 10	974	264	49	1569
Ridgway, William H., Coteville, Pa. Water-wheel.....	415,561	Nov. 19	2147	561	49	1170
Riebenack, Max, trustee. (See Holt, Oliver G., assignor.)						
Rieck, Otto, Mulheim-on-the-Rhine, Prussia, assignor to L. Welter, Cologne, and E. Kreiss, Hammburg, Germany. Filter apparatus.....	416,076	Nov. 26	2931	764	49	1335
Ried, Ernst, Munich, Bavaria, Germany. Flag-staff holder.....	415,229	Nov. 19	1597	411	49	1061
Riedel, Louis, Baker, Kans. Hay-rack.....	414,824	Nov. 12	1067	253	49	941
Riemenschneider, Louis, New York, N. Y. Frame for eyeglasses.....	416,557	Dec. 10	1051	283	49	1355
Ries, Elias E., assignor to Ries & Henderson, Baltimore, Md. Combined electro-magnetic brake and traction-increasing device.....	414,996	Dec. 12	1840	323	49	992
Ries, Elias E., assignor to Ries & Henderson, Baltimore, Md. Operating electric railways.....	417,338	Dec. 17	1754	473	49	1733
Ries & Henderson. (See Ries, Elias E., assignor.)						
Riesbeck, Georg, Allegheny, Pa. Mash-machine.....	411,903	Oct. 1	188	48	49	38
Riesbeck, George, Allegheny, Pa. Mash-machine and grain-remover.....	415,796	Nov. 26	2499	658	49	1346
Riesbeck, Peter, Allegheny, Pa. Clamping device.....	411,967	Oct. 1	274	71	49	55
Riesbeck, Peter, Allegheny, Pa. Stairway. (Reissue.)	411,932	Oct. 1	542	167	49	129
Riesbeck, Peter, Allegheny, Pa. Stairway.....	412,898	Oct. 15	1645	429	49	333
Rifenberg, W. G. (See Dowe, Arthur W., assignor.)						
Riggs, Alphonso, Cincinnati, Ohio. Window-screen.....	413,966	Nov. 29	3228	844	49	603
Riggs, Louis T. (See Ely, George E., assignor.)						
Riker, Andrew L., New York, N. Y. Dynamo-electric machine and motor.....	416,013	Nov. 26	2627	740	49	1315
Riker, Carroll L., Roslins, N. Y. Pneumatic dredge.....	413,091	Oct. 15	1921	503	49	388
Riker, Charles E. (See Finch, John M., assignor.)						
Riley, George, et al. (See Finch, John M., assignor.)						
Riley, John A., Albuquerque, N. Mex. Tire tie-fastener.....	415,283	Nov. 19	1093	439	49	1079
Riley, John M., Newark, N. J. Tube or pipe machine.....	416,828	Dec. 10	1052	284	49	1365
Riley, Luke, Sault Ste. Marie, Mich. Combined punch, shears, and saw-gummers.....	416,499	Dec. 3	514	140	49	1472
Riley, Sylvanus A. (See Wilcox and Williams, assignors.)						
Ring, Elkanah, assignor of one-third to J. Noble, Jr., Westfield, Mass. Safety device for elevators.....	413,632	Oct. 22	2736	709	49	553
Ring, Elkanah, assignor to J. Noble, Jr., Westfield, Mass. Whip-center.....	417,303	Dec. 10	1563	424	49	1067
Ringen, John, Coronado, Cal. Apparatus for utilizing surf-power.....	418,060	Dec. 31	2696	966	49	2137
Ringrose, Jesse W., Mechanicsburg, Pa. Horse-collar.....	412,543	Oct. 8	1121	291	49	220
Rinker, Robert S., assignor of one-half to M. Funkhouser, Rinkerton, Va. Corn-harvester.....	414,638	Nov. 5	735	190	49	825
Ripley, Daniel C., Pittsburgh, Pa. Manufacturing washware.....	414,586	Nov. 5	624	123	49	84
Risendorph, William J., Albany, N. Y. Horse hay-rake.....	418,342	Dec. 31	3312	866	49	2049
Rist, Joseph, and A. F. Cluhine, Kansas City, Mo. Irrigating apparatus.....	417,339	Dec. 17	1763	474	49	1734
Ritchie, Andrew M., Brookline, Mass. Galvanometer.....	413,212	Oct. 29	2997	780	49	612
Ritchie, Robert. (See Randall, Albert G., assignor.)						
Ritchie, William C. (See Pease, Charles F., assignor.)						
Rittenhouse, Benjamin F., Norristown, Pa. Rolling-mill for car-wheels.....	412,415	Oct. 8	929	244	49	188
Rivers, Henry. (See Christie, Alexander, assignor.)						
Rix, Charles N. (See Kuhler, Robert, assignor.)						
Roath, Byron A., Marselles, Ill. Cloth-measuring machine.....	411,674	Oct. 1	141	37	49	30
Rohb, John, et al. (See Matheson, Robert, assignor.)						
Robbins, Elsha F., Cambridge, assignor to T. J. Olys, Boston, Mass. Carriage-axle.....	413,559	Oct. 22	2626	662	49	531
Robbins, John M., Leominster, Mass. Support for railway-rails.....	412,000	Oct. 1	318	83	49	65
Robbins, Joseph T., Newton, Iowa. Stove or furnace.....	418,296	Dec. 31	3130	821	49	2013

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Robbins, Richard J., Suspension Bridge, assignor of two-thirds to C. W. Grabam and E. T. Smith, Buffalo, N. Y. Pipe-ventilator	416,500	Dec. 3	515	140	49	1472
Robbitts, George W., Elmo, Tex. Hay-press	413,944	Oct. 22	2191	371	49	1447
Roberson, Jasper, Turkio, Mo. Cultivator	417,442	Dec. 17	1915	511	49	1763
Robert, Frederick. (See Eastwick, Edward P., Jr., assignor.)						
Robert, Frederick, New York, N. Y. Car-coupling	414,920	Nov. 12	1129	294	49	969
Robert, Frederick, and E. P. Eastwick, Jr., New York, N. Y. Tie and clamp for railway-rails	414,921	Nov. 12	1130	254 295	49	969
Roberts-Brevort Electric Company. (See Roberts, Isaiah L., assignor.)						
Roberts, Charles N., Chicago, Ill. Printing attachment for rotary printing-machines	417,509	Dec. 17	2031	542	49	1785
Roberts, Edward E., Red Bank, N. J. Steam-generator	415,397	Nov. 19	1866	455	49	1111
Roberts, Edward F., Rochester, assignor of one-half to T. R. Sully, Buffalo, N. Y. Pipe-coupling	412,391	Dec. 31	3699	966	49	2129
Roberts, George, Montreal, Quebec, Canada. Coal-oil stove	416,226	Dec. 3	124	34, 35	49	1393
Roberts, George, Montreal, Quebec, Canada. Coal-oil lamp	418,532	Dec. 31	3609	942	49	2111
Roberts, George C., Chicago, Ill., assignor to Troy Laundry Machinery Company, Troy, N. Y. Belt-shifting device	416,384	Dec. 31	3377	881	49	2062
Roberts, George J., and H. Farnum, Dayton, Ohio. Piston-rod packing	416,301	Dec. 3	517	140	49	1472
Roberts, Henry. (See Day and Roberts.)						
Roberts, Henry, Pittsburgh, Pa. Annealing wire	414,122	Oct. 29	3492	899	49	712
Roberts, Isaiah L., Brooklyn, assignor to Roberts-Brevort Electric Company, (limited), New York, N. Y. Diaphragm for galvanic batteries	414,081	Oct. 29	3496	895	49	700
Roberts, John N., assignor of one-half to W. H. Sturgeon, Brainerd, Minn. Boiler	417,443	Dec. 17	1916	512	49	1784
Roberts, Joseph W., Rogers, Ark. Elevator	416,301	Dec. 3	923	58	49	1412
Roberts, Lewis A., Carbondale, assignor of one-half to T. H. Watts, Scranton, Pa. Lighting device	414,889	Nov. 12	1087	279	49	960
Roberts, Peter. (See Dauby and Roberts.)						
Roberts, Thomas H., St. Paul, and R. Seibert, Stillwater, Minn. Automatic switch for cable roads	415,471	Nov. 19	1990	516	49	1137
Roberts, William, Toronto, Ontario, Canada. Secondary battery	414,933	Nov. 12	1179	308	49	979
Roberts, William S. D., and J. S. Mollison, Sydney, New South Wales. Thermo-electric generator	412,660	Oct. 8	1311	342	49	964
Robertson, Dudley R., and J. T. Holland, Perryville, Ky., said Robertson assignor to said Holland, Corn-thinner	416,656	Dec. 31	3791	989	49	2146
Robertson, James, Birmingham, England. Method of and means for making tubes	416,014	Nov. 26	2929	741	49	1516
Robertson, James, Birmingham, county of Warwick, England. Manufacture of tubes	416,077	Nov. 26	2932	764 765	49	1536
Robin, Albert. (See Le Las and Robin.)						
Robins, Sabin. (See Grosvener, Royal W., assignor.)						
Robinson, Andrew J. (See Fischel, Daniel C., assignor.)						
Robinson, Charles H., assignor to himself and G. T. Lewis, Philadelphia, Pa. Thickening linseed-oil	414,722	Nov. 12	837		49	912
Robinson, Charles H., assignor to himself and G. T. Lewis, Philadelphia, Pa. Thickening linseed-oil	414,723	Nov. 12	838		49	912
Robinson, Charles H., assignor to himself and G. T. Lewis, Philadelphia, Pa. Oxidized linseed-oil	414,724	Nov. 12	839		49	913
Robinson, Edgar S., and J. D. Munn, Hobart, N. Y. Harness for horse-blankets	413,967	Oct. 29	3210	814	49	664
Robinson, Edward L., Cincinnati, Ohio. Sand-box for cars	414,907	Nov. 12	1244	324	49	992
Robinson, Edward W., Boston, Mass., assignor to Electric Exercising Machine Company, Nashua, N. H. Electric exercising-machine	418,227	Dec. 31	3131	821 822	49	2013
Robinson, Frank, Climax, Mich. Railway-car card-clip	412,809	Oct. 15	1646	429	49	333
Robinson, Frederick E., assignor of one-half to J. D. Sutter, Chicago, Ill. Coin-controlled spirometer	416,829	Dec. 10	1054	284	49	1285
Robinson, James E., Covington, Ga. Railway-switch	415,587	Nov. 5	628	163	49	865
Robinson, John, and C. Weeks, Hobart, N. Y. Car-coupling	417,368	Dec. 17	1816	488	49	1744
Robinson, John C., Hampton, Va. Ear or bail for buckets, tubs, &c.	418,067	Dec. 24	3764	756	49	1956
Robinson, John E., Philadelphia, Pa. Carrier for hydraulic transit	414,082	Oct. 29	3497	885	49	701
Robinson, John E., Philadelphia, Pa. Cofferdam	414,083	Oct. 29	3498	885 886	49	701
Robinson, John R., Salem, assignor, by mesne assignments, to L. S. Hapgood, Boston, Mass. Type-writing machine	414,368	Nov. 5	627	164	49	865
Robinson, Major J., Marshfield, Wis. Shoe-buckle	416,185	Dec. 3	937	16	49	1379
Robinson-Rea Manufacturing Company. (See Babbitt and Randolph, assignors.)						
Robinson, Stillman W., Columbus, Ohio, assignor of one-half to Wire Grip Fastening Company, Boston, Mass. Nailing-machine for boots or shoes	416,272	Dec. 3	179	48	49	1403
Robinson, Theodore D. (See Long, William H., assignor.)						
Robinson, Thomas C., Boston, assignor to E. B. Welch, Cambridge, Mass. Sewing-machine	418,068	Dec. 24	3875	756	49	1956
Robison, Hiram, Garwood, Pa. Trace-carrier	413,508	Oct. 29	3072	892	49	630
Robison, Joseph. (See Pratt and Robison.)						
Robison, Joseph, assignor of one-half to R. J. Pratt, Greenbush, N. Y. Brush attachment for sawing machines	417,093	Dec. 10	1360	381	49	1635
Robson, Thomas, Philadelphia, Pa. Copying-pad	412,861	Oct. 15	1590	415	49	824
Roby, James, Chicago, Ill. Checking and unchecking device	415,284	Nov. 19	1864	439	49	1079
Rock, Daniel B., Fairfield, Pa. Animal-trap	418,228	Dec. 31	3132	822	49	2014
Rockefeller, John, Astory Park, N. Y. Draft-regulating device	414,084	Oct. 29	3499	886	49	701
Rockwell, Albert F., assignor to New Departure Bell Company, Bristol, Conn. Door or alarm bell	414,123	Oct. 29	3493	900	49	712
Rockwell, Albert F., assignor to New Departure Bell Company, Bristol, Conn. Door or alarm bell	414,124	Oct. 29	3464	900	49	713
Rockwell, Julius E. (See Caracristi, Carlo F. Z., assignor.)						
Rodgers, Alexander, and G. Mee, Muskegon, Mich. Elevated railway	414,225	Nov. 12	981	253	49	941
Rodgers, George W., Bellefonte, Pa. Try-gate for boilers	412,416	Oct. 8	931	244	49	189
Rodgers, Henry J. (See Wright and Rodgers.)						
Rodgers, William H., Brooklyn, N. Y. Automatic exhibitor	412,203	Oct. 1	607	158	49	122
Rodman, Samuel, Jr., U. S. Army. Incandescent-lamp socket	414,922	Nov. 12	1132	295	49	970
Rodrigue, Michael L., San Francisco, Cal. Elastic socket for pen-holders	413,022	Oct. 15	1922	563	49	346
Roebuck, John, Brooklyn, N. Y. Plug stopper or cover	413,022	Nov. 5	919	35	49	792
Roebuck, Samuel, New York, N. Y. Wire saw-setter	416,400	Dec. 10	975	264	49	1569
Roelofs, Anthony, Philadelphia, Pa. Car-door retainer and seal	412,795	Oct. 15	1498	369	49	306
Roenspiess, Max, and M. Flynn, St. Joseph, Mo. Machine for curving and straightening steel rails	418,229	Dec. 31	3136	823	49	2014

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.
			Spec.	Dr. g.	
Roeper, Charles W., Alliance, Ohio. Brake-shoe	415,736	Nov. 26	2415	631	49 1229
Roes, George W., assignor of one-half to J. W. Caswell, Harrison, Me. Rowlock	416,339	Dec. 3	136	35	49 1393
Roth, Louis, New York, N. Y. Car-platform attachment	417,395	Dec. 17	1854	497	49 1750
Rogers Automobile Company, (See Rogers, Ebenezer H., Jr., assignor.)					
Rogers, Charles D., assignor to American Screw Company, Providence, R. I. Wood-screw	413,968	Oct. 29	3230	844	49 664
Rogers, Charles D., assignor to American Screw Company, Providence, R. I. Making horseshoe-nails	414,256	Nov. 5	115	27	49 761
Rogers, Ebenezer H., Jr., New York, N. Y. Time-stamp	413,338	Oct. 22	2298	297	49 467
Rogers, Ebenezer H., Jr., New York, N. Y., assignor to Rogers Automatic Time Stamp Company. Time-stamp	412,900	Oct. 15	1647	429	49 334
Rogers, Henry G., Washington, D. C. Electrical toy	418,069	Dec. 24	2877	756	49 1956
Rogers, Henry G., Washington, D. C. Automatic vending-machine	418,071	Dec. 24	2884	758	49 1958
Rogers, Henry G., and A. M. Coyle, Washington, D. C. Electrical toy	418,070	Dec. 24	2880	757	49 1957
Rogers, Homer, et al. (See Strickler, John D., assignor.)					
Rogers, James H., Bladensburg, Md. Machine for perforating paper	412,001	Oct. 1	319	83, 84	49 65
Rohlfing, Friedrich, Omaha, Neb. Railway-rail joint	415,422	Nov. 19	1908	497	49 1120
Rohlen, Olof, Galesburg, Ill. Window-screen	417,945	Dec. 24	2997	710	49 1921
Rohrer, Albert L. (See Rice and Rohrer.)					
Rolfe, Abiah W. (See Rolfe, Arthur F., J. H., A. W., and C. M.)					
Rolfe, Arthur F., J. H., A. W., and C. M. Penacook, N. H. Coin-envelope	413,351	Oct. 22	2358	606	49 474
Rolfe, Charles M. (See Rolfe, Arthur F., J. H., A. W., and C. M.)					
Rolfe, Joseph H. (See Rolfe, Arthur F., J. H., A. W., and C. M.)					
Roll, Leonard, Wilkes-Barre, Pa. Brick-sanding machine	414,329	Nov. 5	220	55, 56	49 782
Romme, William S. (See Woodall and Romme, assignor of one-half to T. J. McGhee, New York, N. Y. Apparatus for manufacturing plumbers' traps	413,460	Oct. 22	2483	645	49 509
Rongier, Hippolyte, Birmingham, county of Warwick, England. Manufacture of welded chains	413,764	Oct. 29	2922	761	49 600
Rood & Co., E. O. (See Rood, Edwin O., assignor.)					
Rood, Edwin O., Maple Park, assignor to E. O. Rood & Co., Chicago, Ill. Combined ironing-table and clothes-rack	415,362	Nov. 19	2148	562	49 1170
Rood, William C., Quincy, Ill. Show-case	412,544	Oct. 8	1112	291	49 327
Roop, Elhanan, Centre View, Mo. Poultry-vermin exterminator	416,951	Dec. 10	1185	323	49 1612
Roosevelt, Alfred, executor. (See Roosevelt, Hilborne L.)					
Roosevelt, Frank. (See Duval, Salluste, assignor.)					
Roosevelt, Hilborne L., deceased, New York, N. Y.; A. Roosevelt executor. Pneumatic apparatus for	414,998	Nov. 12	1945	334	49 993
Root, Emanuel W., Wheatfield, Ind. Cider or wine press	415,130	Nov. 12	1421	372	49 1028
Root, Howard C., assignor of one-half to J. C. Kelly, Brooklyn, N. Y. Combined blinding-post and thermal cut-out	413,413	Oct. 29	2998	790	49 613
Root, Miles C., assignor of one-half to J. H. Boyd, Toledo, Ohio. Child's carriage	412,041	Oct. 1	378	97	49 76
Roper, Charles F., assignor to G. Draper & Sons, Hopedale, Mass. Automatic sprinkler	412,304	Oct. 1	609	158	49 123
Roper, Charles F., assignor to G. Draper & Sons, Hopedale, Mass. Automatic sprinkler	417,396	Dec. 17	1856	497	49 1751
Roper, Charles F., assignor to Hopedale Machine Screw Company, Hopedale, Mass. Machine for slotting screw-heads	415,472	Nov. 19	1902	516	49 1138
Roper, Sylvester H., Boston, Mass. Magazine fire-arm	413,734	Oct. 29	2955	732	49 501
Rorke, Edward A., Brooklyn, N. Y. Store-service apparatus	418,220	Dec. 31	3137	825	49 2044
Rosa, Albert, assignor to J. A. Zinn, Milwaukee, Wis. Sad-iron	417,285	Dec. 17	1664	455	49 1720
Rose, Charles C., Scranton, Pa. Coal-stock trestle	414,725	Nov. 12	839	217	49 913
Rose, David, Lancaster, Pa. Umbrella	415,363	Nov. 19	2149	562	49 1170
Rose, George A., et al. (See Cowley, William W., assignor.)					
Rose, George F., Fenton, Mich. Whip-socket	411,904	Oct. 1	191	48	49 39
Rose, Henry C., Leadville, Colo. Sash-fastener	417,589	Dec. 17	2160	375	49 1809
Rose, Henry M., Watertown, Ill. Disk harrow	416,346	Dec. 3	291	76, 77	49 1426
Rose, Herbert E., et al. (See Cowley, William W., assignor.)					
Rose, James M., Allegheny, Pa. Manufacturing gas	415,564	Nov. 19	2154	562	49 1171
Rose, James M., Allegheny, Pa. Apparatus for the manufacture of gas	415,565	Nov. 19	2154	563	49 1171
Rose, Reuben M., Norwalk, Conn. Seal	417,510	Dec. 17	2033	542	49 1786
Rosebrugh, Abner M. and T. R., Toronto, Ontario, Canada. Multiple telephone	417,511	Dec. 17	2033	543	49 1786
Rosebrugh, Thomas R. (See Rosebrugh, Abner M. and T. R.)					
Rosenburg, Bernhardt, Waltham, Mass. Calendar-watch	412,796	Oct. 15	1499	390	49 307
Rosendahl, Ole, Minneapolis, Minn. Life-saving apparatus	412,417	Oct. 8	933	244	49 189
Rosenhek, Joseph, Mainkur, near Frankfurt-on-the-Main, assignor to L. Cassella & Co., Frankfurt-on-the-Main, Germany. Production of yellow dye-stuffs	412,978	Oct. 15	1752		49 355
Rosenhek, Joseph, Mainkur, near Frankfurt-on-the-Main, assignor to L. Cassella & Co., Frankfurt-on-the-Main, Germany. Production of yellow coloring-matters	412,979	Oct. 15	1752		49 355
Rosquist, George, New York, N. Y. Tightener	417,512	Dec. 17	2037	543	49 1787
Ross, Alexander, et al. (See McBean, John C., assignor.)					
Ross, Elmore W., Springfield, Ohio. Feed-cutter	417,743	Dec. 24	3288	628	49 1861
Ross, Elmore W., Springfield, Ohio. Feed-cutter	417,744	Dec. 24	3290	629	49 1862
Ross, George, South Butte, Mont. Ter. Straight-edge for receipt or stub books	411,965	Oct. 1	191	48	49 39
Ross, George B., Buffalo, N. Y. Brake-shoe	413,560	Oct. 22	2628	682	49 531
Ross, George B., Buffalo, N. Y., assignor of one-half to C. M. Daniels. Projectile	412,670	Oct. 8	1313	343	49 234
Ross, Henry S., New York, N. Y. Mechanical register	417,640	Dec. 24	2536	668	49 1890
Ross, James A. M., Castleton, assignor of one-half to C. C. Woolworth, Albany, N. Y. Automatic regulator for paper-feeding mechanisms	415,877	Nov. 26	2614	694	49 1369
Ross, Josiah, Buffalo, N. Y. Car brake and starter	414,589	Nov. 5	630	164	49 865
Ross, Oliver P., et al. (See Follett, Edward P., assignor.)					
Ross, Thomas H., St. Louis, Mo. Gripping device for cables	412,671	Oct. 8	1315	343	49 265
Ross, William A. (See Crawford and Ross.)					
Rossiter, Thomas R., Knowle-Bristol, county of Somerset, England. Sewing-machine	414,999	Nov. 19	1247	324	49 993

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. &c.	Vol.	Page.
Rossiter, Thomas R., assignor to Chappell, Allen & Co., London, England. Cording attachment for sewing-machines.	415,000	Nov. 12	1248	325	49	993
Rothford, Theodore F., Washington, D. C. Thill-coupling.	416,647	Dec. 3	744	202	49	1518
Rote, Charles V., assignor of part to B. J. McGrann, E. G. Smith, and E. E. Snyder, Lancaster, Pa. Car-brake.	414,890	Nov. 12	1088	379	49	961
Rote, Charles V., assignor of seventeen twenty-fourths to B. J. McGrann and E. G. Smith, Lancaster, Pa. Car-brake.	414,891	Nov. 12	1090	379	49	961
Rote, Charles V., assignor to B. J. McGrann, E. G. Smith, and E. E. Snyder, Lancaster, Pa. Car-brake.	416,749	Dec. 10	892	240	49	1554
Rote, Charles V., assignor of eleven-twelfths to B. J. McGrann and E. G. Smith, Lancaster, Pa. Car-brake.	417,841	Dec. 24	2539	668	49	1891
Rothschild, Henry, Mansfield, Ohio. Slate-cleaner and eraser.	416,807	Dec. 10	876	285	49	1570
Rothschild Brothers, et al. (See Levy, William M., assignor.)						
Rothwell, Edmund, N. L. Dargis, and A. Andrews, Little Falls, Minn. Detachable head for brick or tile machines.	413,834	Oct. 29	3027	780	49	619
Rounseville, George L. B., Chicago, Ill. Electric-signal system for letter-boxes.	418,322	Dec. 31	3280	858	49	2044
Rouse, Edwin F., Bay City, Mich. Clothes-drier.	415,285	Nov. 19	1035	859	49	1080
Roush, Francis M., Middleburg, Ind. Grain-drier.	413,835	Oct. 29	3028	789	49	619
Rousseau, Charles, New York, N. Y. Child's carriage.	416,750	Dec. 10	895	241	49	1554
Rousseau, David. (See Tirrell, Jacob P., assignor.)						
Rowell, Frank, Boston, Mass. Coating celluloid plates.	415,566	Nov. 19	2159	563	49	1172
Rowell, John S. (See Munger and Rowell.)						
Rowland, Thomas F. (See Hill, Warren E., assignor.)						
Rowland, Thomas F., New York, N. Y. Producing corrugated cylinders.	412,121	Oct. 1	481	135	49	97
Rowland, Thomas F., New York, N. Y. Welding-machine.	412,122	Oct. 1	482	136	49	97
Royce, George H., assignor to J. Cunningham Son & Company, Rochester, N. Y. Carriage-hinge.	412,123	Oct. 1	483	136	49	97
Roy, Samuel F. (See Dugmore, Henry, assignor.)						
Ru, Ton, Hiram W. (See Gore and Ru Ton.)						
Ruan, Walter, et al. (See Menues, Anthony E., assignor.)						
Rubin, Max, New York, N. Y. Box-fastening device.	414,590	Nov. 5	633	165	49	866
Rubin, Max, New York, N. Y. Display-box.	416,502	Dec. 3	518	141	49	1473
Rucker, Alexander M., and T. Long, Milwaukee, Wis. Automatic coal-bucket.	418,231	Dec. 31	3139	834	49	2015
Rudd, George W., Cordon, Ky. Animal-trap.	415,567	Nov. 19	2161	564	49	1172
Rudersdorf, Gustav. (See Rudolph, Rudersdorf, Lemley, and Siegfried.)						
Rudolf-Gribs & Co., et al. (See Pictet, Raoul P., assignor.)						
Rudolph, Charles, G. Rudersdorf, G. Lemley, and H. Siegfried, Youngstown, Ohio. Wood-shaping-machine guard.	415,197	Nov. 12	1423	373	49	1028
Rufe, Morgan, Doylestown, Pa. Double-acting weeding-hoe.	417,444	Dec. 17	1917	512	49	1764
Ruffin, Marie C. A. (See Bang and Ruffin.)						
Rugg, George W., Newark, Ohio. Celery-bleacher.	412,672	Oct. 8	1316	343	49	265
Ruggles, Frank A., Three Rivers, Mass. Paper-clip.	417,445	Dec. 17	1918	512	49	1764
Rumsey, Charles B., assignor to Wire Fabric Company, Homer, N. Y. Take-up mechanism for looms.	416,347	Dec. 3	292	77	49	1427
Rumsey, Lewis M., Spring Park, Minn. Fire-place.	413,561	Oct. 22	2029	682	49	1331
Rumsey, William D., Detroit, Mich. Vehicle running-gear.	413,969	Oct. 29	3231	844	49	664
Rumyos, Edwin E., Burns, Tex. Cotton-cultivating machine.	412,980	Oct. 15	1733	459	49	335
Rung, Henry, Rochester, N. Y. Display-frame.	415,065	Nov. 12	1340	350	49	1011
Runkel, John P., Milwaukee, Wis. Device for an electric car-signal.	417,832	Dec. 24	2541	669	49	1891
Runkle, Benjamin P. (See Platt, William M., assignor.)						
Ruppel, Henry, Cleveland, Ohio. Vapor-burner stove.	416,040	Nov. 26	2874	751	49	1394
Ruppel, Henry, assignor to Z. Davis, Cleveland, Ohio. Vapor-burner stove.	415,568	Nov. 19	2161	564	49	1172
Rust, George W., Bridgeton, N. J. Strainer.	416,932	Dec. 10	1186	323	49	1612
Rushforth, William H., et al. (See Conklin, Joseph I., assignor.)						
Rusling, Joseph F., Lawrenceville, Pa. Case for packing butter, &c.	416,751	Dec. 10	897	242	49	1554
Russell, Burt, and H. T. Parsons, Braidwood, Ill. Automatic dumping-cage.	412,942	Oct. 1	380	98	49	77
Russell, Calvin P. (See Billard, Robert M., assignor.)						
Russell, Charles. (See Beardslee and Russell.)						
Russell & Erwin Manufacturing Company. (See Burgess, Charles M., assignor.)						
Russell & Erwin Manufacturing Company. (See Russell, Henry E., Jr., assignor.)						
Russell, George H., Newburg, Pa. Tanning composition.	411,931	Oct. 1	224	40	49	46
Russell, George H., Newburg, Pa. Tanning.	411,932	Oct. 1	226	40	49	46
Russell, Henry C., and E. E. Herrington, Grand Rapids, Mich. Compound to be used as a substitute for glue, &c.	414,257	Nov. 5	118	40	49	761
Russell, Henry E., Jr., assignor to Russell & Erwin Manufacturing Company, New Britain, Conn. Sheet-metal latch-case.	412,418	Oct. 8	935	245	49	190
Russell, Henry E., Jr., assignor to Russell & Erwin Manufacturing Company, New Britain, Conn. Sheet-metal lock-case.	412,419	Oct. 8	935	245	49	190
Rust, John B., Detroit, Mich. Purifying peeps by dialysis.	414,591	Nov. 5	634	166	49	866
Russell Manufacturing Company. (See Beattie, James, assignor.)						
Russell & Morgan Printing Company. (See Russell, Willis W., assignor.)						
Russell, Thomas J., Mineola, Tex. Combined seed-planter, harrow, and plow.	417,513	Dec. 17	2039	543	49	1787
Russell, William E. (See Salsich, Sherman B., assignor.)						
Russell, Willis W., Norwood, assignor to Russell & Morgan Printing Company, Cincinnati, Ohio. Receiving-box for punching-machines.	413,150	Oct. 15	2019	598	49	407
Rust, Granville M., Owensville, Ohio. Draft-gear for vehicles.	416,752	Dec. 10	898	242	49	1555
Rust, James J., near Georgetown, Pa. Beattie, James, assignor.)	417,684	Dec. 17	2205	608	49	1835
Rust, Solou R., New Hartford, assignor to Birmingham Plate Manufacturing Company, Birmingham, Conn. Plane.	413,329	Oct. 22	2302	598	49	468
Rutherford, Albert E., deceased, Chicago, Ill. E. Rutherford administratrix. Parlor game.	412,397	Oct. 8	753	196	49	153
Rutherford, David. (See Streuber, Gustav, & J. F., assignor.)						
Rutherford, Emily, administratrix. (See Rutherford, Albert E.)						
Ruwart, Henry, Jefferson City, Mo. Riding-saddle.	415,473	Nov. 19	1994	517	49	1138
Ryan, Arthur, Colbergen, Nehr. Mower.	415,369	Nov. 19	1937	475	49	1104
Ryan, Charles W., et al. (See Wilkinson, George, assignor.)						
Ryan, Edward T., New Bedford, Mass. Curling-comb.	411,933	Oct. 1	228	38	49	46

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly Volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Ryan, Timothy J. (See Pelkey, Oliver, assignor.)						
Ryder, Charles M., Findlay, Ohio. Safety pressure gas-regulator	411,875	Oct. 1	143	37	49	30
Ryder, Charles M., New York, N. Y. Regenerative gas-furnace	416,733	Dec. 10	899	242 243	49	1555
Ryder, Gerard W. (See Noot and Ryder.)						
Rylands, Dan. (See Windmill, James T., assignor.)						
Rylands, Dan, Barnsley, county of York, England. Machinery for the manufacture of bottles	416,376	Dec. 3	340	89, 90	49	1436
Ryder, William, assignor of one-half to J. Lothian, Detroit, Mich. Air-brake attachment	416,353	Dec. 10	1187	323	49	1612
Ryon, Eppa H., Canton, Ohio. Machine for enameled watch-glasses	415,737	Nov. 26	2415	632	49	1230
Sachs, John, Washington, D. C. Portable cooler for drinking-glasses	415,989	Nov. 26	2779	728	49	1305
Sack, Joseph, Dusseldorf, Germany. Telephone-switch	416,754	Dec. 10	901	943	49	1555
Safety Hatch Door Company. (See Cox, Smedley, and Cromwell, assignors.)						
Safford Fountain Pen Company. (See Parker, George S., assignor.)						
Safford, Joseph A., Boston, Mass. Leather-splitting machine	413,093	Oct. 15	1924	503 504	49	389
Sagendorph, Frank E., assignor of one-half to E. S. Lloyd, Chicago, Ill. Sheet-metal roofing	416,348	Dec. 3	295	77	49	1427
Sagendorph, Frank E., assignor of one-half to E. S. Lloyd, Chicago, Ill. Sheet-metal roofing	416,687	Dec. 3	801	819	49	1520
Sagendorph, Longley L., Cincinnati, Ohio. Metallic roofing	412,043	Oct. 1	154	89	49	77
Sagendorph, Longley L., Cincinnati, Ohio. Metal roofing	417,947	Dec. 24	2700	711	49	1921
Sagendorph, Longley L., Cincinnati, Ohio. Roofing-tongs	417,948	Dec. 24	2701	711	49	1922
Sagendorph, Longley L., Cincinnati, Ohio. Metallic barrel, box, &c.	418,026	Dec. 31	3749	979	49	2138
Sagendorph, Longley L., Cincinnati, Ohio, assignor of one-half to C. N. Harder, Philmont, N. Y. Metallic rosette	417,094	Dec. 10	1398	381	49	1655
Sagendorph, Longley L., Cincinnati, Ohio, assignor of one-half to C. N. Harder, Philmont, N. Y. Metallic roofing	417,946	Dec. 24	2698	710 711	49	1921
Sagendorph, Longley L., Cincinnati, Ohio, assignor of one-half to C. N. Harder, Philmont, N. Y. Metallic ceiling-cornice	417,949	Dec. 24	2701	711	49	1922
Sager, Israel B., East St. Louis, Ill. Recording device for weighing-scales	411,837	Oct. 1	95	23, 26	49	21
Sagle, Charles E. A. (See Dunford and Sagle.)						
Sagle, Joseph R., Baltimore, Md. Coal-cart	413,461	Oct. 22	2465	645	49	503
Sailer, John M., Milton Junction, assignor to Flexible Engine and Threshing Machine Company, Rock County, Wis. Threshing machine	417,745	Dec. 24	3203	630	49	1562
Salenius, Erik G. N., Stockholm, Sweden. Cartridge-magazine for fire-arms	416,377	Dec. 3	342	91	49	1436
Saltshury, William, Cleveland, Ohio. Railway rail fastening	412,797	Oct. 15	1501	391	49	307
Sallade, Mary F., New York, N. Y. Bolts	418,202	Dec. 31	3141	824	49	2015
Sallade, Mary F., New York, N. Y. Insect-trap	418,203	Dec. 31	3141	824	49	2015
Salsich, Sherman B., Milwaukee, assignor of one-half to W. E. Russell, Hartland, Wis. Fence-post	417,397	Dec. 17	1857	497	49	1751
Saltmeyer, George P., assignor of one-half to W. W. Ford, Lakeport, Ark. Cotton-harvester	418,385	Dec. 31	3379	881 882	49	2062
Salz, Henry W. (See Stafford and Salz.)						
Samisch, Moritz. (See Anderson, Henry, assignor.)						
Sampson, Charles W., Danville, Va. Adjustable measure	416,378	Dec. 3	343	191	49	1436
Sanne, Edward, Philadelphia, Pa. Driving-seat for cars	413,094	Oct. 15	1926	504	49	389
Samuels, Jacob, Albany, N. Y. Sample-card	413,094	Oct. 15	1926	504	49	389
Sanders, Eliza. (See Sanders, Louis, assignor.)						
Sanders, George A., et al. (See Newman, Nelson, assignor.)						
Sanders, Julius H., assignor of one-half to F. W. Irving, Lone Elm, Kans. Machine for cutting and punching metal	416,680	Dec. 10	1057	285	49	1586
Sanders, Louis, assignor, by mesne assignments, to E. Sanders, Brooklyn, N. Y. Belt-support	413,401	Oct. 22	2408	624	49	1857
Sanders, Samuel, Cortes, Iowa. Slide	418,072	Dec. 24	2888	758	49	483
Sanderson, George. (See Hatt, Samuel, assignor.)						
Sanderson, Herbert H., trustee. (See Wilson, John, assignor.)						
Sanderson, Herbert H., trustee. (See Wilson and Mason, assignors.)						
Sands, John. (See Don and Sands.)						
Sands, Josias J., Merton, Wis. Retaining device for bottle-stoppers	413,402	Oct. 22	2486	645	49	503
Sands, Josias J., Merton, Wis. Retaining device for bottle-stoppers	413,970	Oct. 29	3322	645	49	664
Sands, Josias J., Merton, Wis. Device for inserting stopper-holding devices	417,440	Dec. 17	1919	512	49	1761
Sands, Thomas, Nashua, N. H. Weighing-scales	415,221	Nov. 19	1507	412	49	1064
Sandstrom, Robert. (See Baird and Sandstrom.)						
Sanford, Albert, Oaksholt, Wis. Hook	411,968	Oct. 1	275	71	49	56
Sanford, Daniel P., et al. (See Nickels, John, assignor.)						
Sanford, Hopkins A., assignor to New Haven Nail Company, New Haven, Conn. Shoe-nail	412,981	Oct. 15	1755	459	49	333
Saunders & Robinson. (See Squire, John, assignor.)						
Sangerhäuser Actien-Maschinen-Fabrik und Eisengiesserei, vormals Hornung & Kabe. (See Weiss, Franz J., assignor.)						
Sangster, Charles, and A. K. Ormsby, Mansfield, assignors to said Ormsby and N. M. Bradman, Boston, Mass. Combined iron and wire-rope	413,095	Oct. 15	1927	504	49	389
Sanguinetti, Lanke, Vallecito, and W. Stevenson, Douglas Flat, Cal. Fruit-cutting and pitting machine	417,885	Dec. 24	2600	685 686	49	1902
Sarauw, Alfred, Zurich, assignor to L. Dorand & Huguenin, Basle, Switzerland. Production of azo coloring	413,562	Oct. 22	2630		49	532
Sargent, Arthur G., assignor of one-half to Lacombe Car Company, Lacombe, N. H. Thermostat	416,503	Dec. 3	520	141	49	1473
Sargent & Company. (See Wright, Granville W., assignor.)						
Sargent, Frederick G., Graniteville, Mass. Rotary pump	413,684	Oct. 29	2817	733	49	578
Sargent, Jacob T., Carlisle, Ill. Hanger for swinging or sliding gates	414,736	Nov. 12	840	217	49	913
Sargent, James F., Brooklyn, N. Y. Chair-brace	413,201	Oct. 22	2243	582	49	437
Sargent, Roswell C. (See Pless, William B., assignor.)						
Sargent, William D., Evanston, assignor to Congdon Brake Shoe Company, Chicago, Ill. Brake-shoe	416,379	Dec. 3	345	91	49	1427
Sartell, Egbert P., St. Cloud, Minn. Car-heater and pipe-connection	417,447	Dec. 17	1922	513	49	1765
Saunders, William L., New York, N. Y. Driving-tunnels	413,869	Oct. 29	3079	802 803	49	630
Saunders, Llewellyn, Kingstown, county of Dublin, Ireland. Electric-light carbon	418,474	Dec. 31	3509	918	49	2990
Saunier, Alfred. (See Sentex, Marechal, and Saunier.)						
Savigny, Claude, assignor of one-half to B. Martimon, Lyons, France. Treating the mother-liquors of phenol nitrates	412,680	Oct. 8	1330		49	268
Saville, John J., and J. H. Wampler, Omaha, Neb. Electric conductor	417,063	Dec. 10	1398	381	49	1655
Sawyer Crystaline Blue Company. (See Chamberlain, Jeremiah C., assignor.)						
Sawyer, Harry H., Ridley Park, assignor of one-half to Thackras Manufacturing Company, Philadelphia, Pa. Ceiling-plate for electric lights	417,685	Dec. 17	2296	608	49	1815

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Sawyer, Orren A., and M. M. Lahue, Lowell, Mass. Loom	413,563	Oct. 22	2631	683	49	532
Sawyer Spindle Company. (See Burlingame, Henry A., assignor.)						
Sawyer Spindle Company. (See Draper, William F., assignor.)						
Sawyer Spindle Company. (See Goodale, Benjamin N., assignor.)						
Sawyer Spindle Company. (See Taft and Woodman, assignors.)						
Sawyer, Willard W. (See Force and Sawyer.)						
Saxton, Daniel W., Brewster, Nbr. Velocipede	413,104	Oct. 15	1944	508	49	392
Sayers, William B., Lisbon, Portugal, and W. H. Sturge, Birmingham, England. Fitting and hoisting gear for electric lamps.	412,713	Oct. 8	1380	350	40	277
Scate, Linke B., Leeds, county of York, England. Book or shoe	416,861	Dec. 10	1058	285	49	156
Scales, William S., Everett, assignor of two-thirds to G. G. Frost, trustee, Newton, and J. H. Clarke, East Weymouth, Mass. Journal-bearing.	417,340	Dec. 17	1764	474	49	1735
Scanlan, Mortimer. (See Heuvel, Bernard C., assignor.)						
Scarborough, John N., America, Ga. Device for coupling and uncoupling cars.	412,124	Oct. 1	484	127	49	99
Scarborough, John N., America, Ga. Automatic car-brake.	413,564	Oct. 22	2631	684	49	532
Scarborough, Joe T., Lafayette, Ala. Harrow and cultivator	417,631	Dec. 17	2244	596	49	1826
Scarlett, Augustus, Newark, N. J. Educational appliance.	412,044	Oct. 1	382	98	49	77
Scattergood, Charles F. (See Scattergood, Henry V. and C. F.)						
Scattergood, Henry V. and C. F., Albany, N. Y., assignors to E. D. Brainard, Great Bar- rington, Mass. Forming teeth on cotton-gin saws.	415,066	Nov. 12	1342	350	49	1011
Schaefer, Arthur H., et al. (See Cronk, Adolphus V., assignor.)						
Schaefer, John H., Baltimore, Md. House for drying and smoking butchers' products	416,504	Dec. 3	222	141	49	1473
Schaefer, Leonard, Boston, Mass., assignor to Westinghouse Electric Company, Pittsburg, Pa. Automatically closing an interrupted electric circuit.	413,735	Oct. 29	2889	753	49	592
Schaeffer, Daniel B., Fleetwood, Pa. Swathing attachment for harvesters	416,141	Dec. 24	3003	787	49	1918
Schaefer, William E., Carlisle, Ind. Bearings of one-third to H. Pretzinger, Dayton, Ohio. Electric-light support	412,420	Oct. 8	936	245	49	190
Schaupp, Otto W., Philadelphia, Pa. Spool-holding frame for looms	416,802	Dec. 10	1059	285	49	156
Schell, Frank, and G. F. Penn, assignors to N. T. De Pauw, New Albany, Ind. Spindle of glass polishers.	412,421	Oct. 8	937	246	49	190
Schepers, John, St. Louis, Mo. Pipe-cleaner	414,228	Nov. 5	118	28	49	76
Schellinger, Alram S., Trenton, N. J. Sash-cord guide	412,125	Oct. 1	487	127	49	98
Schenck, Charles J. (See Ansley and Schenck.)						
Schenck, John C. P., Moline, Ill. Pocket-knife.	413,971	Oct. 29	3235	845	49	665
Schenck, Peter F., Highlands, N. J. Life-boat	412,799	Oct. 15	1502	399	49	307
Schenck, Peter F., Highlands of Navesink, N. J. Rowing apparatus for life-boats	412,982	Oct. 15	1757	459	49	352
Schenck, Remsen, New York, N. Y. Sash-fastener	415,474	Nov. 19	1985	517	49	1139
Schenck, Remsen, New York, N. Y. Sash-fastener	416,073	Dec. 24	2989	759	49	1958
Schenck, William T. Y., San Francisco, Cal. Hose-reel	416,823	Dec. 10	1060	285	49	157
Scherbel, Jean. (See Remus, Carl T., assignor.)						
Scherbel, Jean. (See Remus, Theodor, assignor.)						
Scherzer, William. (See Hough and Scherzer.)						
Schener, Bruno, Berlin, Germany. Device for securing broken carriage-poles, &c.	413,565	Oct. 22	2635	684	49	532
Scheuer, Isaac, New York, N. Y. Pocket-book	417,586	Dec. 24	3002	655	49	1903
Schickner, William G., Cincinnati, Ohio. Cash indicator and register	414,781	Nov. 12	914	237	49	928
Schild, Charles C. (See Schild, Peter J. C., and F. L.)						
Schild, Frank L. (See Schild, Peter J. C., and F. L.)						
Schild, Peter J. C., and F. L., Iowa, Mich. Horse-boot	416,041	Nov. 26	2877	752	49	1324
Schimmel, Frederick W., Wallace, Idaho Ter. Water-regulator	414,449	Nov. 5	417	106	49	824
Schmiedler, Jacob, Pittsburg, Pa. Apparatus for the manufacture of gas	417,341	Dec. 17	1765	474	49	1735
Schmiedler, Jacob, Pittsburg, Pa. Burning hydrocarbons	417,342	Dec. 17	1768	475	49	1735
Schir, Michael, Plattsmouth, Nbr. Index plate for gear-cutting machines.	416,824	Dec. 10	1061	286	49	157
Schleber, Georges A., Grotz im Voigtlande, Germany. Apparatus for treating fabrics	416,380	Dec. 3	346	91	49	1437
Schlechter, Gustavus A., et al. (See Keeport, Anos E., assignor.)						
Schleicher, Edward G., Mount Vernon, N. Y. Piano-sgraffio.	411,934	Oct. 1	228	38	49	47
Schleicher, Otto. (See Grellenkamp and Schleicher.)						
Schlesinger, Augustus D. (See Streeter and Schlesinger.)						
Schlosser, Nickles, Chicago, Ill. Elevator-gate	415,848	Nov. 26	2574	673	49	1260
Schlossing, Henri, and B. Degremont, Marseilles, France. Coin-operated liquid-vending apparatus.	412,126	Oct. 1	489	128	49	98
Schlossing, Henri, and B. Degremont, Marseilles, France. Coin-operated liquid-vending apparatus.	412,127	Oct. 1	492	129	49	99
Schloss, Max, New York, N. Y. Garment-hook	417,500	Dec. 17	2162	575	49	1809
Schlosser, Peter, Defiance, Ohio. Tire apparatus	414,592	Nov. 5	635	165	49	866
Schneider, Heinrich, and O. Kuch, Stapleton, N. Y. Christmas-tree ornament and candle- holder	414,871	Nov. 12	1054	271	49	954
Schneid, Francois, New York, N. Y., assignor to American Watch Company, Waltham, Mass. Applying characters and lines to watch-dials	416,015	Nov. 26	2839	749	49	1316
Schneemann, Friedrich, assignor of one-half to S. M. Hyman, Philadelphia, Pa. Air or steam brake	417,448	Dec. 17	1925	513	49	1765
Schmid, Albert, Allegheny, assignor to Westinghouse Electric Company, Pittsburg, Pa. Electric machine	416,340	Dec. 3	127	35	49	1302
Schmid, Albert, Allegheny, and N. Tesla, assignors to Westinghouse Electric Company, Pittsburg, Pa. Armature for electric machines	417,794	Dec. 24	2409	650	49	1878
Schmidt, Jakob. (See Gnehm and Schmidt.)						
Schmidt, Erich, Marysville, Cal. Weed-cutter	412,983	Oct. 15	1759	460	49	356
Schmidt, Johann F. E. W., Dresden, Germany. Regenerative-burner lamp	415,067	Nov. 12	1343	350	49	1012
Schmidt, John H. W., Davenport, Iowa. Instrument for taking and transferring measure- ments.	412,984	Oct. 15	1761	460	49	356
Schmidt, Wilhelm, and P. B. Spiegel, Halle-on-the-Saale, Prussia, Germany. Machine for distributing fertilizers.	412,798	Oct. 15	1501	391	49	307
Schmitt, George, New York, N. Y. Extension-table	416,424	Dec. 3	403	109	49	1450
Schmitt, George, New York, N. Y. Folding-compact-receptacle	416,425	Dec. 3	407	109	49	1451
Schmitt, Theodor, et al. (See Reudel, William, assignor.)						
Schmuck, Solomon H., Cleveland, Ohio. Mop-wringer	413,900	Oct. 22	2119	550	49	432
Schnabel, William, Buffalo, N. Y. Chair-seat	416,505	Dec. 3	222	142	49	1474
Schnauffer, Emil, and H. Hupfeld, Frankfurt-on-the-Main, Germany. Making artificial muds.	412,545	Oct. 8	1113	285	49	227
Schneider & Company, E. (See Janssen, Gustave and E., assignors.)						
Schneider, Frederick W. A., Toronto, Ontario, Canada. Electric mechanism for operating telephone call-bells	414,085	Oct. 29	3410	886	49	701
Schneider, Hector, Le Creusot, France. Hydraulic brake for checking and controlling the recoil of ordnance.	415,569	Nov. 19	2162	564	49	1712

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.
			Spec.	Draw.	
Schneider, Henri, Le Creusot, France. Manufacturing the alloys of steel and copper	415,654	Nov. 19	2291	.....	49 1197
Schneider, Henri, Le Creusot, France. Manufacturing the alloys of steel and nickel	415,655	Nov. 19	2292	.....	49 1197
Schneider, Henri, Le Creusot, France. Manufacturing the alloys of cast-iron and copper	415,656	Nov. 19	2293	.....	49 1197
Schneider, Henri, Le Creusot, France. Manufacturing the alloys of cast-iron and nickel	415,657	Nov. 19	2294	.....	49 1197
Schneider, Michael B., New Castle, Pa. Measuring-funnel	415,312	Nov. 19	1742	452	49 1049
Schneider, Paul and H. Trenkamp, Cleveland, Ohio. Vapor-burner	417,343	Dec. 17	1771	475	49 1735
Schnitzler, Charles H., Camden, N. J. Pneumatic conveyor	412,985	Oct. 15	1762	460	49 337
Schnopp, Ernst, Brooklyn, N. Y. Pocket-hook	415,858	Nov. 19	2294	507	49 1197
Schöcke, Hermann, Baltimore, Md. Hoel-singing machine	413,463	Oct. 22	2499	646	49 503
Schoen, Charles T., Philadelphia, Pa. Center-bearing plate for cars	410,273	Dec. 3	181	48	49 1404
Schoen, Charles T., Philadelphia, Pa. Center-bearing plate for cars	416,274	Dec. 3	182	49	49 1404
Schoen, Charles T., Philadelphia, Pa. Center-bearing plate for cars	416,275	Dec. 3	183	142	49 1474
Schoen, Louis, and S. Friedenstein, New York, N. Y. Bolt	412,965	Oct. 15	1765	460	49 337
Schoenfeld, Henry, et al. (See Daellenbach, Charles R., assignor.)					
Schoenfeld, John. (See Smith, David J., assignor.)					
Schoenke, Gustav A., Oshkosh, Wis. Umbrella-holder	416,755	Dec. 10	902	243	49 1555
Scholes, Charles, Merced, Cal. Cable-grip turn table	417,312	Nov. 19	1374	430	49 1649
Schonecke, Henry, Oceana, N. Y. Tool-holder	415,936	Nov. 26	2702	706	49 1348
Schoone, Charles L., New York, N. Y. Stone-cutting machine	416,307	Dec. 3	525	142	49 1474
Schoonmaker, Edward T., New York, N. Y. Car-brake	413,330	Oct. 22	2303	598	49 408
Schott, John B., Quincy, Ill. Horse-collar	417,369	Dec. 17	1817	498	49 1744
Schöverling, A. (See Ehls, Julius, assignor.)					
Schrader, Frederick, Philadelphia, Pa. Bicycle	410,016	Nov. 26	2824	741	49 1316
Schrader, Henry, Philadelphia, Pa. Gas-fixture	415,570	Nov. 19	2164	565	49 1173
Schrader, Herman J., Chicago, Ill. Metallic window-sash bar	412,901	Oct. 15	1649	431	49 334
Schreiber & Conchar Manufacturing Company. (See Merritt, James M., assignor.)					
Schroder, Bernard, Cincinnati, Ohio. Dumping-wagon	413,566	Oct. 22	2635	684	49 531
Schroeder, Emil, San Francisco, Cal. Hair-clipping bench for fur-dressers	416,264	Dec. 10	1092	290	49 1587
Schroeder, Joseph. (See Strauch, N. A., assignor.)					
Schroeder, William S. (See Dayo and Schroeder.)					
Schroen, Frank C., Baltimore, Md. Scraper attachment for brooms or brushes	412,002	Oct. 1	321	84	49 65
Schue, John, assignor of one-half to F. H. Falls, Rochester, N. Y. Door for steam-hoiler furnaces	418,074	Dec. 24	2880	750	49 1858
Schuhmann, Herman, Chicago, Ill. Metallic window-sash bar	415,068	Nov. 12	1344	351	49 1012
Schulte, H. H., et al. (See Kurtz, John A., assignor.)					
Schultz, Gustav, Berlin, Germany. Production of orange and red dye-stuffs	418,657	Dec. 31	3792	.....	49 2117
Schultz, Louis, Racine, Wis. Apparatus for obtaining extracts	417,006	Nov. 19	1490	362	49 1636
Schultz, Gustav F., Alameda, Cal. Coin-operated punching or striking machine	414,330	Nov. 5	223	50	49 753
Schulze-Berge, Hermann, Rochester, Pa. Apparatus for the manufacture of glassware	414,747	Nov. 12	841	217	49 913
Schulze-Berge, Hermann, Rochester, Pa. Decorating glassware	418,234	Dec. 31	3142	.....	49 2016
Schulze-Berge, Hermann, Rochester, Pa. Manufacture of glassware	418,235	Dec. 31	3145	894	49 2016
Schulze-Berge, Hermann, Rochester, Pa. Manufacture of glassware	418,236	Dec. 31	3147	895	49 2016
Schumacher, William, Brooklyn, N. Y. Ornamental wood strip or panel	412,423	Oct. 8	659	246	49 190
Schumacher, William, Brooklyn, N. Y. Flask for casting metal ornaments	418,336	Dec. 31	3332	82	49 2063
Schumann, Ferdinand F., Brooklyn, N. Y. Sash-fastener	412,987	Oct. 15	1765	461	49 337
Schumann, Ferdinand F., Brooklyn, N. Y. Sash-fastener	412,988	Oct. 15	1767	461	49 337
Schupphaus, Robert C., Adams, Mass., and M. T. White, Newark, N. J. Manufacturing pyroxyline	418,237	Dec. 31	3149	825	49 2017
Schuster, Carl G., Markneukirchen, Saxony, Germany. Stringed musical instrument	416,738	Dec. 10	804	244	49 1506
Schuyler Electric Company. (See Dalzell, J. Allan, assignor.)					
Schuyler Electric Light Company. (See Plankache, Gustav, assignor.)					
Schwartz, Charles, Brooklyn, N. Y. Folding box	414,430	Nov. 5	418	106	49 824
Schwengel, Edward C. (See Engert, George J., assignor.)					
Scodfield, Frank R., Cleveland, Ohio. Bolt-threading machine	417,344	Dec. 17	1773	476	49 1736
Scott, Dwight H., Flora, S. D. Tension device for wire fences	416,955	Dec. 10	1190	324	49 1613
Scott, George L. (See Charlton and Scott.)					
Scott, John, assignor of one-fifth to J. P. Mallette, Englewood, Ill. Mold for curving plate-glass	417,097	Dec. 10	1401	369	49 1636
Scott, John E., assignor of one-half to C. E. Jones, guardian, Philadelphia, Pa. Toy	415,176	Nov. 12	1336	395	49 1041
Scott, Joseph H., San Francisco, Cal. Coffin-fastener	416,956	Dec. 10	1190	324	49 1613
Scott, Joseph H., and S. Nelson, San Francisco, Cal. Coffin-fastener	416,957	Dec. 3	324	58	49 1413
Scott, Nathan B., Wheeling, W. Va. Apparatus for forming glasses, &c.	411,969	Oct. 1	276	71	49 56
Scott, Robert, Newcastle-upon-Tyne, county of Northumberland, England. Steam-generator	416,957	Dec. 10	1191	325	49 1613
Scott, Robert D., Pontiac, Mich. Two-wheeled vehicle	415,229	Nov. 19	1559	412	49 1061
Scott, Robert D., Pontiac, Mich. Road-cut	416,341	Dec. 3	129	36	49 1384
Scott, Robert W., et al. (See Williams, Louis N. D., assignor.)					
Scott, Robert W., Philadelphia, Pa. Trimming for the edges of fabrics	412,546	Oct. 8	1114	291	49 227
Scott, Walter, Plainfield, N. J. Sheet-delivery apparatus for printing-presses	413,614	Oct. 29	3000	747	49 613
Scott, Walter, Plainfield, N. J. Cutting and feeding mechanism for printing-presses	414,593	Nov. 5	638	166	49 866
Scott, Walter, Plainfield, N. J. Machine for handling stereotype-plates	415,821	Nov. 26	2355	663	49 1253
Scott, William, Medford, Mass. Siphon water-closet	415,128	Nov. 12	1424	373	49 1028
Scott, Windell B., Danville, Ky. Water purifier	412,922	Oct. 15	1301	415	49 324
Scoville, Elijah U., Marlus, N. Y. Machine for grinding valve on their seats	412,423	Oct. 8	659	246	49 190
Seranton, Alfred L., Western Springs, Ill. Door-hanger	417,345	Dec. 17	1778	477	49 1736
Seribner, Charles E. (See Haskins and Seribner.)					
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Arc lamp	415,571	Nov. 19	2165	566	49 1173
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Arc lamp	415,572	Nov. 19	2167	569	49 1173
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Telephone-exchange system	415,573	Nov. 19	2169	567	49 1174
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Electric light-signal system	415,574	Nov. 19	2171	567	49 1174
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,275	Dec. 3	183	49, 50	49 1404
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Testing apparatus for multiple switch-boards	416,276	Dec. 3	184	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,277	Dec. 3	185	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,278	Dec. 3	186	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,279	Dec. 3	187	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,280	Dec. 3	188	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,281	Dec. 3	189	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,282	Dec. 3	190	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,283	Dec. 3	191	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,284	Dec. 3	192	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,285	Dec. 3	193	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,286	Dec. 3	194	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,287	Dec. 3	195	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,288	Dec. 3	196	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,289	Dec. 3	197	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,290	Dec. 3	198	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,291	Dec. 3	199	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,292	Dec. 3	200	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,293	Dec. 3	201	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,294	Dec. 3	202	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,295	Dec. 3	203	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,296	Dec. 3	204	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,297	Dec. 3	205	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,298	Dec. 3	206	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,299	Dec. 3	207	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,300	Dec. 3	208	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,301	Dec. 3	209	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,302	Dec. 3	210	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,303	Dec. 3	211	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,304	Dec. 3	212	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,305	Dec. 3	213	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,306	Dec. 3	214	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,307	Dec. 3	215	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,308	Dec. 3	216	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,309	Dec. 3	217	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,310	Dec. 3	218	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,311	Dec. 3	219	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,312	Dec. 3	220	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,313	Dec. 3	221	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,314	Dec. 3	222	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,315	Dec. 3	223	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,316	Dec. 3	224	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,317	Dec. 3	225	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,318	Dec. 3	226	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,319	Dec. 3	227	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,320	Dec. 3	228	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,321	Dec. 3	229	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,322	Dec. 3	230	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,323	Dec. 3	231	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,324	Dec. 3	232	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,325	Dec. 3	233	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,326	Dec. 3	234	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,327	Dec. 3	235	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,328	Dec. 3	236	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,329	Dec. 3	237	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,330	Dec. 3	238	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,331	Dec. 3	239	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,332	Dec. 3	240	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,333	Dec. 3	241	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,334	Dec. 3	242	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,335	Dec. 3	243	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,336	Dec. 3	244	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,337	Dec. 3	245	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,338	Dec. 3	246	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,339	Dec. 3	247	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,340	Dec. 3	248	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,341	Dec. 3	249	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,342	Dec. 3	250	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,343	Dec. 3	251	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,344	Dec. 3	252	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,345	Dec. 3	253	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,346	Dec. 3	254	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,347	Dec. 3	255	295	49 1570
Seribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for multiple switch-boards	416,348	Dec. 3	256	295	4

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.
			Spec.	Deq.	
Scutt, Charles H. (See Topping and Scutt.)					
Seifert, William, assignor of one-fourth to F. M. Staplee, trustee, Chicago, Ill. Dynamo-electric machine	414,659	Nov. 5	741	191	49 886
Sealy, Robert. (See Wall, Thomas, assignor.)					
Searle, Bishop & Co. (See Webber, Henry A., assignor.)					
Searles, Edward B., assignor of one-fourth to C. C. Corbin, Baltimore, Md. Grain-car door.	412,305	Oct. 1	610	159	49 192
Sears, Charles, Chicago, Ill. Making stereotype-molds.	412,299	Oct. 8	755	197	49 155
Seat, Robert O., Carlyle, Ill. Scaffold.	415,223	Nov. 19	1599	412 413	49 1061
Seaton, Charles S., et al. (See Edelen, William R., assignor.)					
Seaton, John A., et al. (See Edelen, William R., assignor.)					
Secrest, Louis E., Paris, Tex. Cotton-seed planter	413,105	Oct. 15	1945	508	49 399
Seder, Frank J., Cleveland, Ohio. Sheet-delivering apparatus	412,063	Oct. 1	322	84, 85	49 66
Seebeck, John. (See Thomas, Oscar J., assignor.)					
Seegall, Hermann A., Berlin, Germany. Electrolytically obtaining copper	415,738	Nov. 20	2417		49 1230
Seegall, Hermann A., Berlin, Germany. Making chromium sulphates.	415,739	Nov. 20	2419		49 1230
Seecley, Elmer E., Conneautville, Pa. Animal-trap	414,301	Nov. 5	226	57	49 784
Seecley, Hiram T., Ripon, Wis. Bridle-bit	413,736	Oct. 29	2891	753	49 592
Seely, Charles S. and J. Curzon, Darien, Conn. Sash-holder	418,075	Dec. 24	2891	756	49 1958
Seely, Ohadiah, Syracuse, N. Y. Sliding-door lock	414,352	Nov. 5	227	57	49 784
Seely, Ohadiah, Syracuse, N. Y. Door-lock	414,333	Nov. 5	228	57	49 785
Sefton, John L., assignor to N. W. Sefton Manufacturing Company, Anderson, Ind. Paper vessel	416,810	Dec. 10	981	266	49 1571
Sefton Manufacturing Company, J. W. (See Venema, John, assignor.)					
Segar, Charles T., Utica, N. Y. Rigging for sails	413,246	Oct. 22	2166	564	49 442
Seiberling, Monroe, et al. (See Carter and Perts, assignors.)					
Seibert, Robert. (See Roberts and Seibert.)					
Seichert, Friedrich W. R., Altona, assignor to O. Lindemann, Hamburg, Germany. Arc lamp.	414,130	Oct. 29	3471	901 902	49 714
Seifert, Karl, and K. Malschke, Milwaukee, Wis. Safety track-fastener	417,449	Dec. 17	1927	514	49 1735
Seifert, Edward, Peoria, Ill. Roofing attachment for sawing-machines	413,096	Oct. 15	1928	504	49 359
Selchow, Elisha G., et al. (See Johnson, Frost, assignor.)					
Selden, Charles, Baltimore, Md. Telephone-receiver	413,308	Oct. 22	2270	591	49 462
Sellard, Edmund B., Oden, Iowa. Windmill	413,567	Oct. 22	2636	684	49 533
Sellers & Company, William. (See Bancroft, John S., assignor.)					
Sellers, William, Haverhill, assignor to H. Partridge & Co., Boston, Mass. Campaign-horn	414,600	Nov. 5	744	192	49 887
Selling, Joseph L. (See Selling, Louis, assignor.)					
Selling, Louis, Detroit, Mich., assignor to J. L. Selling, New York, N. Y. Buckle	415,352	Nov. 19	1869	470 471	49 1100
Selling, Louis, Detroit, Mich., assignor to J. L. Selling, New York, N. Y. Trousers-shaping device	415,575	Nov. 19	2172	567	49 1174
Selwyn, Jasper H., London, county of Middlesex, England. Hydro-metallurgical method of extracting metals	412,300	Oct. 8	757		49 155
Sample, Harry, Steubenville, Ohio, assignor of two-thirds to A. H. Heisey, Chartiers, and J. Nicholson, Jr., Allegheny, Pa. Machine for finishing glassware	414,451	Nov. 5	419	106	49 825
Seneca, Stephen J., Havre de Grace, Md. Can-soldering machine	414,738	Nov. 12	843	218	49 913
Sene, Augustin, C. M. Marechal, and A. Sanner, Paris, France. Making bronze alloys.	418,424	Dec. 31	3440		49 3076
Seppie, Jerry J., et al. (See Crosby, Frank P., assignor.)					
Sergeant, Henry C., assignor to Ingersoll Rock Drill Company, New York, N. Y. Regulator for compressors	415,370	Nov. 19	1828	477	49 1104
Sergeant, Henry C., assignor to Ingersoll-Sergeant Rock Drill Company, New York, N. Y. Air-compressor	415,822	Nov. 26	2537	663 664	49 1253
Serve, Jean P., Givors, France. Core-box	417,291	Dec. 17	2163	576	49 1809
Severance, Henry, Dunkirk, N. Y. Car-coupling	417,370	Dec. 17	1818	488	49 1744
Severance, John N., Readville, assignor to Leckie Button and Manufacturing Company, Boston, Mass. Lathe attachment for making metal screws	413,470	Oct. 29	3082	803 804	49 630
Severance, John N., Readville, assignor to Leckie Button and Manufacturing Company, Boston, Mass. Screw-threading die	415,069	Nov. 12	1345	351	49 1012
Seyfert, Julius, and H. Donner, Chemnitz, Saxony, Germany. Straight-knitting machine.	417,514	Dec. 17	2041	544	49 1787
Seymour, Albert P., Syracuse, N. Y. Car-out	411,535	Oct. 1	329	58	49 47
Seymour, Albert P., Syracuse, N. Y. Carbon-clamp for arc lights	411,936	Oct. 1	321	58	49 47
Seymour, Charles, assignor to DeLance Machine Works, Defiance, Ohio. Mortising-machine	417,098	Dec. 10	1403	382 383	49 1656
Seymour, George L., Philadelphia, Pa. Wash-basin	413,765	Oct. 29	2922	764	49 600
Seymour, James A., Auburn, N. Y. Governor for steam-engines	417,515	Dec. 17	2043	545	49 1788
Seymour, John B., Jr., St. Louis, Mo. Paper-roll holder and cutter	417,593	Dec. 17	2164	576	49 1810
Seyter, Herman. (See Walworth and Seyter.)					
Shaffer, Charles E. (See Sinoulli, Pierre J., assignor.)					
Shaffer, Charles H., Rockford, Ill. Thermostatic alarm	413,568	Oct. 22	2639	685	49 533
Shaffer, John E., Oak Hill, Mo. Rotary adjustable stove-pipe thimble	412,073	Oct. 8	1317	344	49 365
Shaler, Henry L., assignor of one-half to S. H. Jennings, Deep River, Conn. Auger	413,572	Oct. 29	3336	845	49 665
Shallenberger, Oliver B., Rochester, assignor to Westinghouse Electric Company, Pittsburg, Pa. System of electrical distribution for street-lighting	411,970	Oct. 1	277	71	49 56
Shallenberger, Oliver B., Rochester, assignor to Westinghouse Electric Company, Pittsburg, Pa. System of distribution by alternating electric currents	412,932	Oct. 15	1694	442	49 342
Shallenberger, Oliver B., Rochester, assignor to Westinghouse Electric Company, Pittsburg, Pa. Discharge device for direct-lighting	412,933	Oct. 15	1696	442	49 343
Shallenberger, Oliver B., Rochester, assignor to Westinghouse Electric Company, Pittsburg, Pa. Meter for alternating electric currents	414,285	Nov. 5	638	167	49 867
Shaneman, Joseph S. (See Willetta, Reuben, assignor.)					
Shank, James, Clayton, Ill. Cultivator	411,906	Oct. 1	192	49	49 39
Shank, James, Clayton, Ill. Cultivator	417,746	Dec. 24	2394	630	49 1802
Shapleigh, Waldron, Camden, assignor to Electric Storage Battery Company, Gloucester City, N. J. Making lead chloride	412,500	Oct. 15	1503	392	49 308
Shapleigh, Waldron, Camden, assignor to Electric Storage Battery Company, Gloucester City, N. J. Mold for casting the plates of storage-batteries	413,309	Oct. 22	2971	591	49 462
Sharkey, John, Winnipeg, Manitoba, Canada. Locomotive-boiler	416,958	Dec. 10	1192	325	49 1613
Sharp, Archibald, London, county of Middlesex, England. Velocipede	415,740	Nov. 26	2431	622 623	49 1230
Sharp, Walter A., Poughkeepsie, N. Y. Hoisting apparatus	415,823	Nov. 26	2539	664	49 1254
Sharpe, John, assignor of one-third to R. H. Reid, Toronto, Ontario, Canada. Cash indicator and register	414,872	Nov. 12	1055	273	49 954

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. &	Vol.	Page.
Sharpe, Lemuel W., and G. M. Carson, Osage, Minn. Running-gear for vehicles	414,892	Nov. 12	1092	280	49	961
Sharples, William E., Fall River, Mass. Traveler-cleaner for spinning-frames	414,329	Nov. 5	120	26	49	761
Sharples, William E., Fall River, Mass. Traveler-cleaning device for ring-spinning frames	416,475	Dec. 31	3510	918	49	3029
Shaatsick, Arthur O., St. Louis, Mo. Sash-fastener	416,321	Dec. 31	3288	860	49	2045
Shaver Corporation. (See Shaver, George F., assignor.)						
Shaver, George F., assignor to Shaver Corporation, New York, N. Y. Mechanical-telephone exchange	414,170	Oct. 29	3538	924	49	798
Shaw, Charles F., Tama, Iowa. Attachment for saddlers' stitching-machines	416,865	Dec. 10	1064	286	49	1567
Shaw, Charles H., Brooklyn, N. Y. Time-stamp	412,902	Oct. 15	1650	431	49	334
Shaw, Damon D., Big Bend, Kans. Car-coupling	416,326	Dec. 31	3151	825	49	3017
Shaw, Edwin F. (See Bates, Shaw, and Von Culin.)						
Shaw, James, Paterson, N. J. Spindle-wharve	412,004	Oct. 1	324	85	49	66
Shaw, Joseph, Manchester, county of Lancaster, England. Machine for grooving tires for carriage-wheels	412,801	Oct. 15	1506	392	49	308
Shaw, Noah, Eau Claire, Wis. Friction-clutch	412,674	Oct. 8	1316	344	49	265
Shaw, Noah, Eau Claire, Wis. Pulley or wheel	416,676	Dec. 31	2882	759	49	1929
Shaw, William J. (See McNeill and Shaw.)						
Shawhan, Jabez F., assignor of one-half to W. Carpenter, Dayton, Ohio. Arc lamp	417,516	Dec. 17	2044	545	49	1788
Shea, Smith & Company. (See Jenkins and Hyers, assignors.)						
Shea, Thomas A. (See Smiley and Shea.)						
Sheater, Frank T., Clinton, Ontario, Canada. Vocal-wave tremolo for reed-organs	414,066	Oct. 29	3411	886	49	702
Shedlock, Alfred, Jersey City, N. J. Spray-lamp	415,308	Nov. 19	1867	446	49	1112
Sheets, Edwin D., Cedar Rapids, Iowa. Generator-burner for gasoline-stoves	416,508	Dec. 3	3247	143	49	1474
Sheets, George W. (See Leinard and Sheets.)						
Sheffield & Son, J. B. (See Bittersdorff, Oscar V., assignor.)						
Sheffield Vehicle Car Company. (See Probert, Hubert F., assignor.)						
Sheffield, William H., Zionsville, Ind. Fence	415,741	Nov. 26	3423	633	49	1230
Sheifer, Noah S., New York, N. Y. Tailor's stitching-machine	415,946	Oct. 1	385	99	49	78
Sheilaberger, Edward F. (See Whitaker, Harry M., assignor.)						
Sheilaberger, Michael M., Beaver Falls, Pa. Drive-chain	415,300	Nov. 19	1722	449	49	1085
Shelley, James H., Brooklyn, N. Y. Attachment for grain-scales	413,871	Oct. 29	3088	805	49	631
Shelton Comb Company. (See Lincoln, George T., assignor.)						
Shelton, Thomas, assignor to National Tube Works Company, McKeesport, Pa. Apparatus for sealing pipe-joints	413,737	Oct. 29	2892	753	49	393
Shelton, Thomas, assignor to National Tube Works Company, McKeesport, Pa. Apparatus for sealing pipe-joints	413,738	Oct. 29	2894	753	49	503
Shepard, Edwin K., New York, N. Y. Metallic clamp	413,793	Oct. 29	2971	774	49	608
Shepard, James A., Havana, N. Y. Steam-engine	412,047	Oct. 1	326	109	49	78
Shepard, James A., Havana, N. Y. Air and feed-water pump for condensing engines	412,048	Oct. 1	328	100	49	78
Shepard, Wilbur L., West Hartford, assignor of one-half to H. B., W. E., and N. E. Goodwin, Elmwood, Conn. Pottery-machine	417,099	Dec. 10	1404	393	49	1657
Shepard, William P., Fall River, Mass. Sewing-machine	412,675	Oct. 8	1329	344	49	266
Shepley, John H., assignor of two-thirds to R. C. Blackall and J. F. Browne, Albany, N. Y. Lubricating-ramp	412,306	Oct. 1	612	159	49	126
Sheppard, William G., Cook, Neb. Vise	416,959	Dec. 10	1193	325	49	1614
Sherr, David A., et al. (See Griffiths, James H., assignor.)						
Sherman, Algeron S., Plympton, Mass. Feed-box for poultry	415,749	Nov. 26	3494	623	49	1231
Sherman Electric Storage Equipment Company. (See Sherman, William F., assignor.)						
Sherman, Eugene A., Stevens Point, Wis. Belt-fastener	416,509	Dec. 3	329	143	49	1475
Sherman, George F., Milwaukee, Wis., assignor of one-half to J. E. Mitchell, Salem, Iowa. Car-axle lubricator	412,494	Oct. 8	940	247	49	191
Sherman, Lewis, Milwaukee, Wis. Temperature-regulator	412,547	Oct. 8	1115	292	49	227
Sherman, William F., Lowell, Mass., assignor, by mesne assignments, to Sherman Electric Storage Equipment Company, of New Hampshire. Power-transmitting clutch	413,569	Oct. 22	2639	665	49	534
Sherman, Willis M. (See Tangenberg, Christian, assignor.)						
Sberry, Patrick P. (See Davey, Thomas, assignor.)						
Sherwin, Isaac S., Toronto, Ontario, Canada. Farm-gate	412,128	Oct. 1	496	131	49	100
Sherwood, Daniel H., Salem, Ore. Washing-machine	415,301	Nov. 19	1723	449	49	1085
Sherwood, Frank G., assignor to Clark's Coking and Smokeless Furnace Company, Rochester, N. Y. Furnace	412,907	Oct. 1	613	159	49	123
Sherwood, Sidney G., assignor of one-half to J. E. Barnard, Buffalo, N. Y. Photograph-cabinet	414,171	Oct. 29	3541	924	49	798
Shibe & Co., J. D. (See Shibe & Co., Daniel M., assignor.)						
Shibe, Daniel M., assignor to J. D. Shibe & Co., Philadelphia, Pa. Base-ball	415,884	Nov. 26	3694	686	49	1271
Shields, James H., Chicago, Ill. Machine for stapling pipe-coverings	412,129	Oct. 1	497	132	49	100
Shimer, Samuel J., Milton, Pa. Wood-working machine	412,685	Oct. 29	2818	724	49	578
Shimp, Jacob A., Ridgeville, Ill. Weed-turner	414,334	Nov. 5	230	58	49	785
Shipley, Ralph J., Waterbury, Conn., assignor to G. W. McGill, New York, N. Y. Making paper-fasteners	416,510	Dec. 3	329	144	49	1475
Shipley, Ralph J., Waterbury, Conn., assignor to G. W. McGill, Riverdale, N. Y. Machine for making paper-fasteners	416,333	Dec. 31	3610	942	49	2111
Shipley, Ralph J., Waterbury, Conn., assignor to G. W. McGill, Riverdale, N. Y. Machine for making paper-fasteners	416,334	Dec. 31	3612	942	49	2112
Shipley, Ralph J., Waterbury, Conn., assignor to G. W. McGill, Riverdale, N. Y. Machine for making paper-fasteners	416,335	Dec. 31	3613	943	49	2112
Shipley, Ralph J., Waterbury, Conn., assignor to G. W. McGill, Riverdale, N. Y. Machine for making paper-fasteners	416,336	Dec. 31	3615	944	49	2112
Shipman, Andrew B., Columbus Junction, Iowa. Show-case	413,872	Oct. 29	3089	805	49	611
Shively, Abraham, Hanoverton, Ohio. Air heating and circulating device	413,097	Oct. 15	1921	565	49	380
Shively, John J., Cerro Gordo, Ill. Hay-loader	412,130	Oct. 1	500	133	49	101
Shoeb, Edward, Louisville, Ky. Coffee or tea pot	414,506	Nov. 5	640	167	49	867
Sholes, Christopher L., Milwaukee, Wis. Type-writing machine	416,229	Dec. 31	3152	836	49	2017
Sholl, Melvin, Terrace, Utah Ter. Lubricator	412,873	Oct. 29	3090	805	49	632
Shone, Isaac, London, England. Finishing-tank	417,100	Dec. 10	1406	384	49	1657
Shoemaker, Bernard. (See Loma, John R., assignor.)						
Shonk, William W., Yonahda, Ill. Saw-saw	412,076	Oct. 8	1231	344	49	266
Shoop, John F., Wilsaukton, Pa. Nut-lock	416,960	Dec. 10	1194	326	49	1614
Short, Sidney H., Columbus, Ohio. Electric-motor support	415,070	Nov. 12	1346	351	49	1012
Short, Sidney H., Cleveland, Ohio. Device for suspending electric conductors	417,747	Dec. 24	2395	630	49	1263

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'k	Vol.	Page.
Shorter, John U., <i>et al.</i> (See Perry, William, assignor.)						
Shugart, William, Middlebury, Vt. Corroplating	418,387	Dec. 31	3782	892	49	2063
Shoup, William H., Middlebury, Ind. Churn	412,934	Oct. 15	1697	442	49	343
Shufeldt & Co., Henry H. (See Shufeldt and Lynch, assignors.)						
Shufeldt, Henry H., and J. A. Lynch, assignors to H. H. Shufeldt & Co., Chicago, Ill. Frl- tering apparatus	416,660	Dec. 10	1064	287	49	1588
Shuffelt, John H., assignor of one-half to C. B. Kelley, Chicago, Ill. Surfacing and polish- ing machine	412,548	Oct. 8	1116	292	49	327
Shuler, William W., <i>et al.</i> (See Walters, Jasper M., assignor.)						
Shultis, John, West Berne, N. Y. Car-coupling	415,313	Nov. 19	1743	453	49	1059
Shultz, John A. J., assignor to B. C. Alvord, St. Louis, Mo. Pulley	415,948	Nov. 26	2737	716	49	1396
Shuster, Lawrence, Jr., Philadelphia, Pa. Device for temporarily sealing the ends of soil or waste pipes	416,276	Dec. 3	189	50	49	1405
Shuttig, Julius, Nashville, Tenn. Pillow-sham bolder	418,240	Dec. 31	3155	827	49	2018
Shuttis, Charles H., Elkhart, Ind. Shade for furnace-doors	415,570	Oct. 22	3043	025	49	334
Shuttis, John, <i>et al.</i> (See O'Neill, Lawrence, assignor.)						
Sibley, Albert P., South Bend, Ind. Drill-press	412,677	Oct. 8	1322	345	49	296
Sibley, Gideon, Philadelphia, Pa. Dental tool	416,433	Dec. 3	408	110	49	1451
Sibley, Gideon, Philadelphia, Pa. Flexible shaft	416,427	Dec. 3	409	111	49	1451
Scottie, Pierre, assignor to himself and L. H. Bonnet, Chicago, Ill. Cutter for making moldings	417,748	Dec. 24	2296	630 631	49	1803
Slide, Edgar, Philadelphia, assignor to J. J. Carr and F. C. Sturges, Wilkes-Barre, Pa. Au- tomatic weighing-scoop	412,409	Oct. 1	389	100	49	78
Sidesinger, Alexander W. (See Rexford and Sidesinger.)						
Sidway, Henry T., Chicago, Ill. Biscuit-cutter	414,452	Nov. 5	422	107	49	825
Siebrecht, John. (See Feld and Siebrecht.)						
Siebert, Friedrich A. (See Döring and Siebert.)						
Siegfried, Henry. (See Kudeph, Rudolph, Lemley, and Siegfried.)						
Siemens, Alexander, <i>et al.</i> (See Foulis, William, assignor.)						
Siemens, Ernst W., assignor to Siemens & Halske, Berlin, Germany. Electric meter	415,577	Nov. 19	2177	568	49	1175
Siemens, Frederick, <i>et al.</i> (See Foulis, William, assignor.)						
Siemens & Halske. (See Duhmann, Carl, assignor.)						
Siemens & Halske. (See Siemens, Ernst W., assignor.)						
Siemens & Halske. (See Siemens, Werner, assignor.)						
Siemens & Halske. (See Wesslau and Trautwein, assignors.)						
Siemens, Werner, assignor to Siemens & Halske, Berlin, Germany. Electro-deposition of metals	415,576	Nov. 19	2173	567	49	1175
Siersdorfer, Michael, Louisville, Ky. Safety attachment for gas-burners	417,101	Dec. 10	1408	384	49	1637
Siersdorfer, Michael, Louisville, Ky. Bottle-stopper	418,077	Dec. 24	2894	700	49	1939
Silverman, William. (See Harris, Charles B., assignor.) (Reissue.)						
Simmons, Charles H., and J. B. Hepburn, Brooklyn, assignors to New York and New Haven Automatic Sprinkler Company, New York, N. Y. Automatic fire-extinguishing system	416,667	Dec. 10	1066	287	49	1588
Simmons, Henry T., Bloomington, Ind. Packing-counter for stores, &c	414,453	Nov. 5	422	107	49	825
Simmons, Henry T., and J. P. Naylor, Bloomington, Ind. Impermeable facing for trousers	416,126	Dec. 3	54	17	49	1380
Simmons, James W. (See Irwin, Joseph, and Simmons.)						
Simmons, John P., Los Angeles, Cal. Steam-boller	415,302	Nov. 19	1724	449	49	1095
Simmons, John P., Los Angeles, Cal. Steam-boller	415,303	Nov. 19	1725	449	49	1096
Simmons, Leonard A. (See Doolittle, George W., assignor.)						
Sims, Charles H., Baltimore, Md. Pouchet for French stamping	412,549	Oct. 8	1117	292	49	327
Simou, Simon H., New York, N. Y. Swing-cover for receptacles	412,550	Oct. 8	1118	292	49	328
Simonis, Jacques L. H. G., Verriers, Belgium. Machine for drying and carbonizing wool, &c	416,646	Dec. 3	746	202	49	1518
Simonneet, Jean B. A., Clermont-Ferrand, France, assignor to S. W. Cragg, Baltimore, Md. Extracting gold or silver by chloroform	413,680	Oct. 29	2824	736	49	579
Simoulin, Pierre J., assignor, by mesne assignments, to C. E. Shafer, Paris, France. Block used as beds in punching and cutting machines and in cutting out generally	412,402	Oct. 15	1507	392	49	308
Simons, Thomas A., <i>et al.</i> (See Beach, Adam, assignor.)						
Simpsin, William. (See Withfull and Simpsin.)						
Simplex Automatic Machine Company. (See Bingham, Charles H., assignor.)						
Simpson, James A., Columbus, Ohio. Double-tree-spring	416,757	Dec. 10	904	244	49	1536
Sims, Corydon W., Waynesborough, Ga. Seed-planter	413,210	Oct. 22	2315	550	49	422
Sims, Hiram A. (See Henry, Robert T., assignor.)						
Sims, Henry, Erie, Pa. Low-water alarm	417,517	Dec. 17	3047	545	49	1788
Sims, Mary A., New York, N. Y. Drying-rail and foot-rest for heat-registers	417,102	Dec. 10	1410	384	49	1657
Sims, William T., Yazoo City, Miss. Car-coupling	417,518	Dec. 17	3048	546	49	1788
Smclair, James M., New York, N. Y. Partition-wall	416,428	Dec. 3	410	110	49	1451
Smith, Elias, W. Millport, N. Y. Fishing boat	415,297	Nov. 26	2503	633	49	1846
Singer, Ignace, and M. W. Judell, London, England. Apparatus for cleansing wool	415,314	Nov. 19	1744	453	49	1099
Singer, Robert. (See Herberger and Singer.)						
Singleton, William, Winchester, Ky. Device for sealing and stamping letters and other mailable matter	418,078	Dec. 24	2895	700 701	49	1939
Sin-helmert, Max. (See Fischel, Daniel C., assignor.)						
Sitz, Clark, Springfield, Ohio. Gas-engine	416,649	Dec. 3	747	202	49	1518
Siviter, John, Halesowen, county of Worcester, England. Manufacturing blanks for axle- boxes	411,276	Oct. 1	145	37	49	30
Sixsmith, Thomas, New York, N. Y. Scaffold-standard	412,989	Oct. 15	1700	402	49	359
Skelton, Francis A., Newton, Mass. Fire-alarm-telegraph repeater	415,578	Nov. 19	2178	568	49	1175
Skillman, Edward. (See McNeal, Charles, assignor.)						
Skinner, Albert B., St. Louis, Mo. Book	415,798	Nov. 26	2504	633	49	1846
Skinner, Allen L. (See Warner and Skinner.)						
Skinner, George H., Guelph, Ontario, Canada. Sofa-bed	412,990	Oct. 15	1771	402	49	358
Skinner, John, assignor of one-half to O. Stone, Flint, Mich. Car-coupling	417,103	Dec. 10	1410	385	49	1658
Slagel, Charles W., Davenport, N. Y. Motive power for churns	417,194	Dec. 10	1412	385	49	1659
Slater, John H., Stanton, N. Y. Bolt	412,551	Oct. 8	1119	293	49	328
Slattery, Marnaduke M. M. (See Taylor and Slattery.)						
Slatermaker, Samuel R., <i>et al.</i> (See Troast, William F., assignor.)						
Sleeper, Charles W., Island Pond, Vt. Car-bending machine	412,552	Oct. 8	1120	293	49	328
Sleeper, Joseph F., and J. P. Miller, assignors to F. P. Holt, Laconia, N. H. Manufactur- ing stockings	415,579	Nov. 19	2181	568	49	1176
Sleeper, Joseph F., and J. P. Miller, assignors to F. P. Holt, Laconia, N. H. Manufactur- ing stockings	415,580	Nov. 19	2182	569	49	1176
Sleeper, Joseph F., and J. P. Miller, assignors to F. P. Holt, Laconia, N. H. Stocking	415,581	Nov. 19	2183	569	49	1176
Sleeper, Joseph F., and J. P. Miller, assignors to F. P. Holt, Laconia, N. H. Stocking	415,582	Nov. 19	2184	570	49	1176
Sleeper, Joseph J., Camden, N. J. Car-coupling	413,571	Oct. 22	2644	686	49	535

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr.	Vol.	Page.
Slents, Alburice O., assignor to Peerless Reaper Company, Canton, Ohio. Grain-binder.	412,241	Dec. 31	3156	227	49	2018
Slents, Alburice O., assignor to Peerless Reaper Company, Canton, Ohio. Grain-binder.	412,242	Dec. 31	3158	228	49	2019
Slevin, Thomas, St. Louis, Mo. Portable turn-table.	413,739	Oct. 29	2696	754	49	803
Slipher, William I., Mulberry, Ind. Washing-machine.	413,129	Nov. 12	1436	373	49	1028
Slicer, Benjamin F. (See Appleton and Slicer.)						
Sloan, Peter, Merion Station, Pa. Shade-holder for candles.	412,301	Oct. 8	750	197	49	1535
Sloan, Thomas E. (See Chandler, Rufus, assignor.)						
Slocum, Eason L., Pawtucket, R. I. Secondary electric clock.	416,148	Nov. 26	3062	735	49	1360
Slonicker, Charles H. (See Kogler and Slonicker.)						
Small, Chester C., Malden, assignor to F. F. Raymond, 2d, Newton, Mass. Heel-nailing machine.	412,973	Oct. 29	3237	845	49	665
Small, George E. (See Mitchell and Small.)						
Smalley, Clarence C., Manitowish, Wis. Feed-cutter box.	412,302	Oct. 8	760	197	49	155
Smead, Isaac D., Toledo, Ohio. Dry closet.	415,790	Nov. 26	2505	654	49	1246
Smedley, James L. (See Cook, Smedley, and Cromwell.)						
Smedstad, Andrew A., Fargo, N. D. Clothes-drier.	415,743	Nov. 26	2424	634	49	1231
Snidt, William H., New York, N. Y. Shoe-hook.	413,096	Oct. 15	1933	485	49	809
Snidt, William H., New York, N. Y. Shoe-lacing hook.	413,099	Oct. 15	1934	505	49	30
Snitely, De Witt C., Jr., and T. A. Shea, assignors of one-third to G. Rabenstein, Newark, N. J. Pneumatic door-check.	416,758	Dec. 10	906	244	49	1556
Smiley, Frank M., Goshen, Ind. Car-brake.	412,935	Oct. 15	1098	443	49	343
Smillie, George W., Newark, N. J. Car-coupling.	416,187	Dec. 3	55	17	49	1240
Smith, Allen V., Canton, Ohio. Thill-coupling.	414,260	Nov. 5	121	28	49	762
Smith, Ambrose O., Sheboygan, Wis., assignor of one-half to F. Ward, Toledo, Ohio. Gas generator.	412,678	Oct. 8	1394	345	49	207
Smith, Charles, Rogers, Ark. Buckle for straps.	416,759	Dec. 10	909	245	49	1556
Smith, Charles, Rogers, Ark. Combined buckle and snap-hook.	416,868	Dec. 10	1068	228	49	1558
Smith, Charles H., New York, N. Y. Buckle & Company, New Haven, Conn. Buckle-guard.	417,550	Dec. 24	2702	712	49	1928
Smith, Charles L., et al. (See Phillips, Edward, assignor.)	418,627	Dec. 31	3750	979	49	2133
Smith & Co., C. H. (See Carpenter and Crosby, assignors.)						
Smith, Comly S., Philadelphia, Pa. Machine for skinning furbelers.	412,344	Oct. 8	828	217	49	168
Smith, David J., assignor of one-half to J. Schoenfeld, Reading, Pa. Bell-ringing apparatus.	412,308	Oct. 1	614	139	49	123
Smith, David L., San Francisco, Cal. Fruit-drier.	413,131	Oct. 1	562	133	49	162
Smith, De Wane B., Deerfield, assignor to J. M. Childs & Co., Utica, N. Y. Harrow.	413,352	Oct. 22	3339	606	49	474
Smith, Edson J., assignor to J. Carter & Co., Boston, Mass. Apparatus for finishing the edges of cards and paper.	416,869	Dec. 10	1069	228	49	1559
Smith, Edward C. (See Lundholm, Otto W., assignor.)						
Smith, Edward T., et al. (See Robbins, Richard J., assignor.)						
Smith, Edwin D., Pittsburg, Pa. Shoe-blackening-kit case.	413,265	Oct. 22	2193	571	49	447
Smith & Egge Manufacturing Company. (See Egge, Frederick, assignor.)						
Smith, Eugene C., assignor of one-fifth to C. F. Frothingham, New York, N. Y. Permuta-tion-lock.	414,361	Nov. 5	122	29	49	702
Smith, Eugene C., assignor to Universal Lock Company of New York, New York, N. Y. Lock.	415,476	Dec. 31	3512	919	49	2060
Smith, Eugene G., et al. (See Rote, Charles V., assignor.)						
Smith, Frank H., Chicago, Ill. Bag and twine or batten holder.	412,505	Oct. 15	1598	393	49	368
Smith, Frank W. (See Randlett and Smith.)						
Smith, Franklin A., Jr., Providence, R. I. Button fastener.	413,667	Oct. 29	3227	737	49	560
Smith, Frederick H., Kansas City, Mo. Petroleum-burner.	412,575	Dec. 31	3159	228	49	2014
Smith, Friend W., Jr., and S. S. Williamson, Bridgeport, Conn. Check-punch.	412,575	Dec. 31	3159	228	49	2014
Smith, Gary B., Kansas City, Mo. Machine-belt.	413,576	Oct. 22	3640	647	49	536
Smith, George A., assignor of one-half to W. H. Kueas, Norristown, Pa. Thill-support.	412,679	Oct. 8	1327	346	49	207
Smith, George A., assignor of three-fourths to L. M. Johnson, C. E. Lott, G. Barnes, and R. S. Murphy, Paulding, Ohio. Grain-scourer.	418,658	Dec. 31	3793	989	49	2147
Smith, George E., Cooney, and C. H. Wilkie, Silver City, N. Mex. Ter. Ore-stamp.	417,965	Dec. 24	2796	717	49	1926
Smith, George H., Sacramento, Cal. Die for making engine-spring ends.	416,017	Nov. 26	2836	741	49	1317
Smith, George W., assignor of one-half to J. B. Hendricks, Union City, Ind. Signal-lantern.	413,375	Oct. 22	2575	615	49	480
Smith, George W. L., and J. F. Dresbach, Homer, Ill. Dumping apparatus.	413,577	Oct. 22	3650	648	49	537
Smith, Gilbert. (See McAdon, Thomas, assignor.)	416,439	Dec. 3	896	77	49	1427
Smith, Hamilton E., New York, N. Y. Bolt.	414,087	Oct. 29	3412	887	49	702
Smith, Hamilton E., New York, N. Y. Bolt.	417,103	Dec. 10	1413	365	49	1638
Smith, Harris E., Bridgeport, Conn. Machine for manufacturing dress-shields.	413,974	Oct. 29	3239	847	49	665
Smith, Herman S., Geneva, N. Y. Rotary veneer or lumber cutting machine.	412,553	Oct. 8	1122	293	49	228
Smith, Henry P., assignor to J. H. Duncan and F. A. Hale, Syracuse, N. Y. Holder for calendars and memoranda combined.	417,106	Dec. 10	1414	366	49	1652
Smith, Henry V., assignor to F. B. Bradley, Bridgeport, Conn. Caster.	413,583	Nov. 19	2185	570	49	1177
Smith, Henry V., assignor of one-half to F. B. Bradley, Bridgeport, Conn. Game.	416,511	Dec. 3	333	144	49	1476
Smith, Henry W., St. Louis, Mo. Stock-car.	413,355	Nov. 19	1644	425	49	1070
Smith, Horace S., Joliet, Ill. Billet-conveyor.	415,001	Nov. 12	1249	326	49	993
Smith, Horace S., and C. Pettigrew, assignors to Joliet Steel Company, Joliet, Ill. Com-bined shears and conveyor.	416,961	Dec. 10	1195	336	49	1614
Smith, Horace S., and C. Pettigrew, assignors to Illinois Steel Company, Chicago, Ill. Mechanism for billet-forming.	416,962	Dec. 10	1196	337	49	1614
Smith, Howard F., Elkhart, Ind. Apparatus for molding articles from pulp.	415,304	Nov. 19	1727	450	49	1066
Smith, James A., and V. B. Giddings, Chicago, Ill. Brake for vehicles.	414,507	Nov. 5	642	167	49	868
Smith, James A., and V. B. Giddings, Chicago, Ill. Railway time-signal.	417,449	Dec. 24	2936	631	49	1863
Smith, James H. (See Crarry, Hamilton, assignor.)						
Smith, James H., Beaumont, Tex. Pipe-wrench.	417,652	Dec. 17	2246	506	49	1826
Smith, John, Kansas City, Mo. Slip-joint for sheet-metal cornices, pipes, &c.	415,224	Nov. 19	1601	413	49	1062
Smith, John G., assignor to H. W. and J. H. Gosh, Montreal, Quebec, Canada. Sectional water-heater.	412,554	Oct. 8	1127	294	49	229
Smith, John M., Leetonia, Pa. Harmonic key-board attachment.	418,382	Dec. 31	3384	893	49	2064
Smith, Joseph D., et al. (See Phillips, Edward, assignor.)	413,975	Oct. 29	3242	847	49	665
Smith, Joseph E. C., et al. (See Smith, Peter J., assignor.) (Reissue.)						
Smith, Joshua M., Springfield, assignor of one-half to C. F. Wolfe, Moorefield, Ohio. Straw-stacker.	412,363	Oct. 8	761	197	49	156
Smith, Lester S., Silver City, N. Mex. Ter. Combined blackboard and game-board.	415,371	Nov. 19	1831	477	49	1105
Smith, Lester C., assignor to C. H. Webb, New York, N. Y. Adding-machine.	414,335	Nov. 5	820	26	49	785
Smith, Lewis A., and J. H. Kruse, Akron, Ohio. Feed-water purifier.	416,128	Dec. 3	37	17	49	1359

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Smith, Lincoln, Niantic, Conn. Vending apparatus.....	416,512	Dec. 8	535	145	49	1476
Smith, Mark E., McPherson, Kans. Device for administering anesthetics.....	414,454	Nov. 5	425	107	49	825
Smith, Mary E. (See Duncan, James E., assignor.)						
Smith, Mary G. F. Palm, and S. Irvine, Cincinnati, Ohio. Roller cloth or apron for cigar-bunching machines.....	417,593	Dec. 17	2168	576	49	1810
Smith, Martin A., Atlantic, Iowa. Band cutter and feeder.....	418,392	Dec. 31	3702	967	49	2120
Smith, Mary E. (See Schuyler, Nebr. Heat-radiator for oil-stoves.....)						
Smith, Miles G., Kingston, Pa. Brake-latch.....	418,944	Dec. 31	3161	938	49	3019
Smith, Minard M., Brooklyn, N. Y. Rumbling-machine.....	414,729	Nov. 12	844	218	49	914
Smith, Mortimer, Germantown, N. Y. Lamp-lighter.....	415,744	Nov. 26	2437	634	49	1231
Smith, Othello, Philadelphia, Pa., and H. K. Melford, Philadelphia, Pa., assignors to said Melford. Machine for manufacturing compressed pills.....	412,425	Oct. 8	941	247	49	191
Smith, Otis G., Alamosa, Colo. Ribbon-holder.....	413,310	Oct. 22	2973	591	49	463
Smith, Peter J., assignor to himself, J. E. C. Smith, Philadelphia, Pa., and W. B. Smith, Washington, D. C. Tool for packing stuffing-boxes. (Reissue.).....	415,423	Nov. 19	1909	497	49	1132
Smith, Richard, Sherbrooke, Quebec, Canada. Steam-controlling device.....	411,035	Oct. 15	2037	529	49	410
Smith, Robert D. O., Mishawaka, Ind. Electric alarm.....	412,804	Dec. 15	1509	393	49	306
Smith, Robert T., Westminster, Md. Hedge fence.....	416,381	Dec. 3	348	93	49	1437
Smith, Robert W. (See Phillips and Smith.)						
Smith, Roswell T., Naasha, N. H. Embroidering-machine.....	418,303	Dec. 31	3704	968	49	2129
Smith, Roswell T., assignor to himself, N. W. Goddard, Naasha, N. H., and G. H. Dunham, New York, N. Y. Embroidering-machine.....	416,811	Dec. 10	982	266	49	1571
Smith, Ruben J., Osceola, Iowa. Hay-stacking machine.....	417,295	Dec. 17	1686	456	49	1720
Smith, Rudolph C. (See Venn and Smith.)						
Smith, Sidney, Cambridge, Mass. Incased stop or shut-off.....	412,365	Oct. 8	1128	295	49	329
Smith, Sinclair, Long Island City, N. Y. Air-whistle.....	415,685	Nov. 19	2340	610	49	1307
Smith, Stebel, et al. (See Overpeck, Isaac E., assignor.)						
Smith, Stephen T., New York, N. Y. Inking-pad.....	414,336	Nov. 5	923	53	49	745
Smith, Stephen T., Brooklyn, N. Y. Inking-pad.....	414,846	Nov. 12	1024	264	49	949
Smith, Stephen T., Brooklyn, N. Y. Inking-pad.....	414,947	Nov. 12	1025	264	49	949
Smith, Thomas S., Washington, D. C. Brake for vehicles.....	414,748	Nov. 12	1025	264	49	949
Smith, Uriah, Battle Creek, Mich. Spectacles.....	412,132	Oct. 1	543	133	49	102
Smith, Walter F., Philadelphia, Pa. Secondary battery.....	411,971	Oct. 1	279	72	49	56
Smith, Walter F., Philadelphia, Pa., assignor to United Electric Improvement Company, Gloucester City, N. J. Frame for secondary-battery plates.....	415,981	Nov. 26	2780	728	49	1305
Smith, Walter F., Philadelphia, Pa., assignor to United Electric Improvement Company, Gloucester City, N. J. Connector for batteries.....	412,345	Oct. 8	829	217	49	169
Smith, Walter F., Philadelphia, Pa., assignor to United Electric Improvement Company, Gloucester City, N. J. Connecting device for electric batteries.....	412,346	Oct. 8	831	217	49	169
Smith, Walter F., Philadelphia, Pa., assignor to Electric Storage Battery Company, Gloucester City, N. J. Making supports for electrodes of secondary batteries.....	412,347	Oct. 8	833	217	49	169
Smith, Walton D., Prophetstown, Ill. Handle for paper boxes.....	416,129	Nov. 26	3033		49	1354
Smith, Wellington D. (See McElhone, George W., assignor.)						
Smith, Wendell M., Rochester, N. Y., assignor of one-half to G. T. Carter, Pittsburg, Pa. Pantaloon-holder.....	416,078	Nov. 26	2940	765	49	1336
Smith, Wilber L. (See Lipp, Jacob, assignor.)						
Smith, William, Caloma, Iowa. Device for blurring animals.....	414,730	Nov. 12	845	219	49	914
Smith, William, and C. H. Hill, Danville, Ind. Grocer's canister.....	418,537	Dec. 31	3612	944	49	2113
Smith, William A. (See McCormick, Willis R., assignor.)						
Smith, William B., et al. (See Smith, Peter J., assignor.) (Reissue.)	416,042	Nov. 26	2873	732	49	1335
Smith, William F., Holton, Ga. Pea-buller.....	412,005	Oct. 1	395	85	49	66
Smith, William G., assignor of one-half to C. R. Hotchkiss, Denver, Colo. Automatic indicator.....	416,689	Dec. 3	802	219	49	1529
Smith, William O., Norwalk, assignor of one-fourth to T. Fleisher, Jr., Cleveland, Ohio. Self-oiling journal-box.....	417,787	Dec. 24	3603	685	49	1003
Smith, William W., Elkbart, Ind. Inhaler.....	413,100	Oct. 15	1335	566	49	300
Smith, Woolen Machinery Company, Jamaica. (See Ferguson, William, assignor.)						
Smithson, Alton H., Atlanta, Ga. Ash-pan cleaner.....	414,455	Nov. 5	426	108	49	826
Smythe, Samuel R. (See Swindell, Smythe, and Swindell.)						
Snead, Samuel W., Laurel Hill, N. C. Fertilizer-distributor.....	416,392	Dec. 3	850	92	49	1438
Snedden, William T., Wyandotte, Kans., assignor to H. B. Berryman, Berkeley, Cal. Mechanism for operating station-indicators.....	416,303	Dec. 3	825	59	49	1413
Snedden, William T., Wyandotte, Kans., assignor to H. B. Berryman, Berkeley, Cal. Station-indicator.....	416,304	Dec. 3	828	59, 60	49	1414
Snedden, William T., Wyandotte, Kans., assignor to H. B. Berryman, Berkeley, Cal. Mechanism for operating station-indicators.....	416,305	Dec. 3	831	60	49	1414
Snedker, James F. (See Billestein and Snedker.)						
Sneider, Charles E., assignor of one-half to M. G. Gill, Baltimore, Md. Breach-loading magazine fire-arm.....	417,594	Dec. 17	2166	577	49	1810
Sneider, Charles E., assignor of one-half to M. G. Gill, Baltimore, Md. Breach-loading magazine fire-arm.....	417,595	Dec. 17	2171	577	49	1811
Snelgrove, William, Bankwood, county of Worcester, England. Weighing apparatus.....	413,301	Oct. 22	2304	598	49	468
Snellenburg, Samuel, Philadelphia, Pa. Reducing propeller for vessels.....	417,398	Dec. 17	1858	497	49	1751
Snelling, David, Freedom, Ill. Gopher cultivator.....	415,584	Nov. 19	2167	570	49	1177
Snow, John M. (See Boughton and Snow.)						
Snow, Samuel K. (See Heilig, Irwin W., assignor.)						
Snow, Frank H. (See Nichols, Frederic A., assignor.)						
Snow, Frank P., Eaton, N. H. Violin tail-piece.....	412,436	Oct. 8	942	247	49	191
Snow, George B., Buffalo, N. Y. Soldering-iron heater.....	414,923	Nov. 12	1114	296	49	970
Snow, Gilbert B. and J. T. Sugar Grove, Ill. Corn-harvester.....	417,107	Dec. 10	1435	393	49	1658
Snow, James T. (See Snow, Gilbert B. and J. T.)						
Snow, William H., Oakland, Cal. Packing-box.....	412,209	Oct. 1	615	160	49	123
Snow, William H., High Point, N. C. Tobacco-picker.....	414,177	Oct. 29	3550	967	49	730
Snowdon, William F., Brooklyn, N. Y. Cotton-punch.....	415,399	Nov. 19	1870	486	49	1112
Snyder, Abraham B., Louisville, Ohio. Automatic railway-signal.....	414,994	Nov. 12	1135	396	49	970
Snyder, Edwin P., Stroudsburg, Pa. Washing-machine.....	414,337	Nov. 5	233	59	49	746
Snyder, Elmer E., et al. (See Rote, Charles V., assignor.)	414,362	Nov. 5	124	29	49	762
Snyder, Harvey A., Chenoa, Ill. Car-coupling.....	418,425	Dec. 31	3441	899	49	2076
Snyder, Thomas C., and T. C. Belding, assignors to Canton Steel Roofing Company, Canton, Ohio. Sheet-metal roofing.....	414,661	Nov. 5	745	102	49	887

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Div. 6	Vol.	Page.
Snyder, Waldo V., Canton, Ohio. Feed-box.	412,304	Oct. 8	763	198	49	156
Snyder, Watson, Petoskey, Mich. Apparatus for burning fluid hydrocarbons.	412,133	Oct. 1	505	134	49	102
Snyder, William D., Chicago, Ill., assignor to Fort Wayne Furniture Company, Fort Wayne, Ind. Folding bedstead.	417,108	Dec. 10	1416	386 387	49	1659
Société Anonyme des Moteurs Thermiques Gardie. (See Gardie, Céphas F. L., assignor.)						
Société Neyron Cahen & Compagnie. (See Ray and Depay, assignors.)						
Society of Chemical Industry. (See Oehmich and Schuid, assignors.)						
Soderin, Jonas S., New York, N. Y. Telling pen.	412,991	Oct. 15	1773	462	49	358
Soeding, Gustav, Philadelphia, Pa. Coin-controlled strength-tester.	415,940	Nov. 26	2738	716	49	1296
Solano, Renaldo, assignor of two-thirds to J. W. Howard and D. R. Morse, Brooklyn, N. Y. Vestibule railway car.	413,874	Oct. 29	3091	805 806	49	632
Solomons, Alden, et al. (See Palmer, Seymour C., assignor.)						
Solon, Louis H., and J. McMahon, Mendota, Ill. Register.	415,982	Nov. 26	2782	728	49	1305
Solvay, Ernest, Brussels, Belgium, assignor to Solvay Process Company, Syracuse, N. Y. Making bleaching-powder.	417,287	Dec. 17	1688	486	49	1730
Solvay Process Company.						
Somerville, Philip, San Francisco, Cal. Vehicle-ace.	412,050	Oct. 1	389	200	49	78
Sommer, Adolph, Berkeley, Cal. Extinguishing mercury.	416,760	Dec. 10	110		49	1557
Sommer, John. (See Sommer, Peter, J., and P. W.)						
Sommer, Peter, J., and P. W., Dillon, Ill. Wire fence.	415,125	Oct. 29	3465	900	49	713
Sommer, Peter W. (See Sommer, Peter, J., and P. W.)						
Sommerfeld, Heinrich, Canton, Kaus. Car-coupling.	415,225	Nov. 19	1692	413	49	1062
Soosmith, Charles and E. L. Abbott, New York, N. Y. Building tunnel or shafts.	417,388	Dec. 17	1690	456	49	1721
Soper, Robert W., assignor of one-half to M. Hayes, Detroit, Mich. Cash-carrier apparatus.	416,070	Dec. 10	1121	289	49	1559
Sorden, John H., Philadelphia, Pa. Grease-cup.	412,550	Oct. 8	1030	295	49	230
Sorensen, Carl W., assignor of one-half to E. C. Tecktonius, Racine, Wis. Seed-sower.	416,127	Nov. 26	3034	729	49	1354
Sorensen, Christen A., New York, N. Y. Washing-machine.	417,229	Dec. 17	1691	456	49	1721
Sorensen, Nels, Chicago, Ill. Combination elevating-chair.	417,750	Dec. 24	2400	632	49	1863
Sosenthaler, John, Hamilton, Pa. Ice-tongs.	415,338	Nov. 5	235	59	49	786
Sotheim, Charles C. (See Carroll and Sotheim.)						
Sonie, Buren M., Englewood, Ill., assignor of one-half to Weddle & Co. Vehicle-spring.	414,263	Nov. 5	125	30	49	762
Southall, James H., et al. (See Menner, Anthony F., assignor.)						
Southall, Robert H., Headingley, Leeds, county of York, England. Boot or shoe heel trimming machine.	414,731	Nov. 12	847	219	49	914
Southard, Frank E., Toledo, Ohio. Vehicle-wheel.	414,782	Nov. 12	916	237	49	918
Southcott, James H. (See Lehman and Southcott.)						
Southwick, George W., Franklin, Mass. Chafe-iron for vehicles.	417,751	Dec. 21	2401	632	49	1864
Southwick, Lorenzo T., Ewart, Mich. Paving-block-cutting machine.	417,619	Dec. 17	2049	546	49	1789
Sowards, William B. (See Vance, Andrew P., assignor.)						
Sowell, John A., Wheatland, Cal. Sickle-bar for harvesters.	416,963	Dec. 10	1197	327	49	1615
Spain, Rudolph, Brooklyn, N. Y. Feed mechanism for button-hole sewing-machines.	417,375	Oct. 29	3023	608	49	632
Spangenberg, Robert F., New Orleans, La. Apparatus for lubricating gun-saws.	416,079	Nov. 26	2942	766	49	1337
Spangler, Albert E. (See Brown and Spangler.)						
Spangler, Samuel H., assignor of one-half to L. Lewenthal, Palestine, Tex. Apparatus for distilling wood.	417,752	Dec. 24	2402	632 633	49	1864
Spaulding, Elsie A. (See Hartness and Spaulding.)						
Spaulding, George H., Lake View, assignor of one-half to W. J. Lukens, Cook County, Ill. Whip-socket.	413,633	Oct. 22	2738	709	49	554
Spaulding, Helen C., Boston, Mass. Time-recording device for dynamo-electric machines.	414,339	Nov. 5	335	59	49	766
Spaulding, Hollon C., Boston, Mass. Dynamometer.	414,598	Nov. 5	443	168	49	865
Spaulding, Nathan W., et al. (See Farclot, Charles O., assignor.)						
Spear, Furman D., Brooklyn, N. Y. Lantern.	413,464	Oct. 22	2490	646	49	504
Speck, Herman H., Milwaukee, Wis. Child's carriage.	417,109	Dec. 10	1417	387	49	1639
Speicher, John, Jersey City, assignor to Newark District Telegraph Company, Newark, N. J. Fire-alarm system.	416,513	Dec. 3	536	146	49	1476
Spellier Electric Time Company. (See Spellier, Louis H., assignor.)						
Spellier, Louis H., assignor to Spellier Electric Time Company, Philadelphia, Pa. Time-distributor for electric clocks.	417,753	Dec. 24	2403	633	49	1864
Spence, Archibald, assignor to W. King, Montreal, Quebec, Canada. Water-heater.	418,538	Dec. 31	3619	945	49	2113
Spencer, James E. (See Spencer, John S., assignor.)						
Spencer, John. (See Stephens, Edward F., assignor.)						
Spencer, John S., New York, assignor of one-half J. E. Spencer, Brooklyn, N. Y. Opera-glass holder.	416,871	Dec. 10	1072	289	49	1589
Spencer, Luke G., assignor to E. & T. Fairbanks & Company, St. Johnsbury, Vt. Weighing-scales.	415,924	Nov. 26	2540	664	49	1254
Spencer, Richard H. (See Cabanne, James S., assignor.)						
Spencer, Richard M., New York, N. Y. Cap and can-closure.	412,134	Oct. 1	507	134	49	102
Spencer, William. (See Wallace and Spencer.)						
Sperry, Elmer A., Chicago, Ill. Gas-pressure regulator.	418,245	Dec. 31	3162	829	49	1919
Sperry, Elmer A., Chicago, Ill., assignor to Electrical Supply Company, Ansonia, Conn. Galvanic battery.	417,890	Dec. 17	1693	457	49	1731
Spiegel, Paul B. (See Schmidt and Spiegel.)						
Spilman, Baldwin D. (See Spilman, Henry E., assignor.)						
Spilman, Henry E., Spilman, assignor of one-half to B. D. Spilman, Parkersburg, W. Va. Car-coupling.	416,429	Dec. 3	412	111	49	1432
Spink, James. (See Heyman, Edward M., assignor.)						
Spinner, Parker, et al. (See Collins and Taylor, assignors.)						
Spiral Weld Tube Company. (See Green, George R., assignor.)						
Spiro, Charles, New York, N. Y. Photographic developing-bath. (Reissue.)	11,034	Oct. 15	2096		49	410
Spitzer, Maurice, Dayton, Ohio. Lubricator.	414,599	Nov. 5	646	108	49	812
Spivey, Edward F. and G. W. Flint, Tex. Stamping or dating machine.	413,688	Oct. 29	3528	737	49	520
Spivey, George W. (See Spivey, Edward F. and G. W.)						
Spittlesloer, Ferdinand, North Branch, Minn. Sprinkler.	414,732	Nov. 12	843	219	49	914
Spittlesloer, Ferdinand, North Branch Station, Minn. Pole attachment for vehicles.	415,885	Nov. 19	2129	571	49	1177
Spofford, Jason, Jr. (See Wells and Spofford.)						
Sprague, Alvin L. (See Sprague, Henry O. and A. L.)						
Sprague, Edwin, Pittsburg, Pa. Folding bed-lounge.	417,843	Dec. 24	2562	669	49	1891
Sprague, Edwin L. (See Peare, George R., assignor.)						
Sprague Electric Railway and Motor Company. (See Sprague, Frank J., assignor.)						
Sprague Electric Railway and Motor Company. (See Sprague, Frank J. and O'Shaughnessy, assignors.)						
Sprague, Frank J., assignor to Sprague Electric Railway and Motor Company, New York, N. Y. Electric-railway car.	413,151	Oct. 15	2021	527	49	407

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.
			Spec.	Dr. g.	
Sprague, Frank J., and P. F. O'Shaughnessy, assignors to Sprague Electric Railway and Motor Company, New York, N. Y. Electric railway.....	414,172	Oct. 29	3541	{ 924 } { 925 } { 926 }	49 798
Sprague, Henry O. and A. L. Westfield, Mass. Heating apparatus.....	417,596	Dec. 17	9173	578	49 1812
Sprake, Charles, Detroit, Mich. Fork.....	416,631	Dec. 3	751	203	49 1519
Spratt's Patent, (America.) (See Drewitt, William H., assignor.)					
Spring Curry Comb Company. (See Bartlett, Charles H., assignor.)					
Springer, Charles C., Boston, Mass. Pulp-digester.....	411,828	Oct. 1	98	96	49 92
Springer, Henry, Mount Vernon, Ind. Vehicle-spring.....	416,377	Dec. 3	190	50	49 1405
Spruquer, Theodore G., and M. A. Morse, Chicago, Ill. Process of and apparatus for manufacturing gas.....	412,135	Oct. 1	509	134	49 103
Springfield Glue and Enery Wheel Company. (See Hyde and Horner, assignors.)					
Sproul, Charles H. (See Waldron and Sproul.)					
Sprout, Samuel E., Muncy, Pa. Fruit-evaporator.....	418,079	Dec. 24	2900	761	49 1960
Spruett, Christian B. M. (See Houseman and Spruett.)					
Spurgin, William F., West Point, N. Y. Bed-pan.....	415,093	Nov. 12	1250	396	49 994
Spurr, George W., New Britain, Conn. Reeling-chair.....	417,530	Dec. 17	9052	546	49 1759
Squier, Horace S., Newark, N. J. Snap-hook.....	412,946	Dec. 31	3163	829	49 2030
Squire, Harvey, Stockton, Cal. Gang-plow.....	415,800	Nov. 26	2507	{ 654 } { 655 }	49 1247
Squires, John, assignor to Sanford & Robinson, Troy, N. Y. Making apparel-collars.....	415,071	Nov. 12	1348	392	49 1013
St. Albans Manufacturing Company. (See Fosa, George E., assignor.)					
St. John, Alonzo, Lowell, N. Y. Thill-coupling.....	412,863	Oct. 15	1292	415	49 334
St. Johns, Peter, Milton, Vt. Propeller-wheel.....	413,573	Oct. 22	2646	668	49 535
St. Joseph Manufacturing Company. (See Miller, Justus L., assignor.)					
St. Louis Type Foundry. (See Payer and Burns, assignors.)					
Stadtmueller, Max F. B., Pomeroy, Iowa. Butter-worker.....	417,597	Dec. 17	2174	578	49 1812
Staff, Peter N. (See Dawson, Edward, assignor.)					
Stafford, George W., assignor to G. W. Stord Manufacturing Company, Providence, R. I. Shedding mechanism for looms.....	415,686	Nov. 19	2342	610	49 1207
Stafford, George W., and C. H. Poland, Providence, R. I. Shedding mechanism for looms.....	414,600	Nov. 5	647	168	49 869
Stafford, George W., and S. D. Barrett, assignors to G. W. Stafford Manufacturing Company, Providence, R. I. Shedding mechanism for looms.....	417,521	Dec. 17	2653	547	49 1789
Stafford, Hosea B., and H. W. Salz, Maunson, Iowa. Agricultural boiler.....	414,028	Oct. 29	3413	887	49 702
Stafford Manufacturing Company, George W. (See Stafford, George W., assignor.)					
Stafford Manufacturing Company, Geo. W. (See Stafford and Barrett, assignors.)					
Stafford, Orange H. et al. (See Brick, Edward, assignor.)					
Stallman, Granville H., Cincinnati, Ohio, assignor to Murray Iron Works Company, of Iowa. Meat-cutter.....	412,557	Oct. 8	1132	295	49 230
Stalter, Robert, New Straitsville, Ohio. Car-wheel.....	413,740	Oct. 29	2296	754	49 593
Staudard, John, Newark, N. J. Oil-stove.....	413,689	Oct. 29	2829	{ 737 } { 738 }	49 580
Standard Buggy Spring Company. (See Raymond, Silas H., assignor.)					
Standard Car Axle Lubricator Company. (See Faas, Rudolph, assignor.)					
Standard Manufacturing Company. (See Harrlander, August, assignor.)					
Standard Metal Tie and Construction Company. (See McElahan, Isaac S., assignor.)					
Standard Paint Company. (See Livingston and Griscom, assignors.)					
Standard Recorder Company. (See O'Neill, Henry G., assignor.)					
Standardfield, John, Westminster, England. Floating dock.....	412,992	Oct. 15	1774	463	49 358
Stanley Manufacturing Company. (See Richardson, Everett P., assignor.)					
Stanley, Reginald, Nuneaton, county of Warwick, England. Tunneling-machine.....	414,893	Nov. 12	1093	{ 980 } { 981 }	49 961
Stanley, William, Jr., Great Barrington, Mass. Dynamo-electric generator.....	418,659	Dec. 31	3795	{ 999 } { 1000 }	49 2147
Stansbury, Robert P., Brooklyn, N. Y. Device for stringing papers and the like.....	417,110	Dec. 10	1418	367	49 1659
Stanton, Henry T., Frankfort, Ky., assignor to R. Walsh, Washington, D. C. Package for vaccine-points.....	418,020	Dec. 24	2902	761	49 1960
Staples, Frank M. (See Seafert, William, assignor.)	417,653	Dec. 17	2247	597	49 1826
Staples, Hiram, assignor of two-thirds to M. Barr, Battle Creek, Mich. Slat-and-wire-fence machine.....	415,177	Nov. 12	1537	395	49 1041
Stapp, Robert H., Woodward, Cherokee Outlet, Ind. Ter. Car-coupling.....	417,291	Dec. 17	1694	457	49 1722
Star Drives Manufacturing Company, St. Paul, Minn. (See Freeman A., assignor.)					
Stark, Frederick G., Manchester, N. H. Hammer.....	412,539	Dec. 31	3620	945	49 2113
Stark, Michael J., et al., executors. (See Dopp, Henry W.)					
Starkweather, Martin S., Boston, Mass. Horseshoe-pad.....	415,003	Nov. 12	1251	327	49 994
Starley, William, Coventry, England, and H. S. Owen, Washington, D. C. Tandem bicycle.....	415,072	Nov. 12	1340	{ 352 } { 353 }	49 1013
Starr, Eli T., assignor to S. S. White Dental Manufacturing Company, Philadelphia, Pa. Lining dental plates with gold.....	413,376	Oct. 22	2376	615	49 480
Starr, Eli T., assignor to S. S. White Dental Manufacturing Company, Philadelphia, Pa. Dentist's burr-drill.....	415,983	Nov. 26	2753	729	49 1306
Starr, Eli T., assignor to S. S. White Dental Manufacturing Company, Philadelphia, Pa. Inhaler.....	417,735	Dec. 24	2470	651	49 1878
Stearns, Raymond T., Bloomington, Ill. Hinge.....	412,540	Dec. 31	3621	945	49 2113
Stettmann, Christian, St. Paul, Minn. Mail-carrier.....	412,457	Oct. 8	943	248	49 191
Stauder, William H., Asbury Park, N. J. Making photographic pictures.....	413,106	Oct. 15	1916	508	49 392
Steam Gauge and Lantern Company. (See Betts, Charles L., assignor.)					
Steam Gauge and Lantern Company et al. (See McArthur, Warren, assignor.)					
Stearns, Augustus C. (See Boynton, Elbert, and Stearns.)					
Stearns, De Witte, Des Moines, Iowa. Burner for gas-generators.....	413,766	Oct. 29	2933	{ 764 } { 765 }	49 601
Stearns, De Witte, Des Moines, Iowa. Gas-generator.....	413,767	Oct. 29	2935	765	49 601
Stearns, Wilfrid D., New York, N. Y. Skirt-protecting garment.....	418,081	Dec. 24	2903	702	49 1960
Stearns, Wilfrid D., New York, N. Y. Skirt-protecting garment.....	418,082	Dec. 24	2904	702	49 1961
Stebbins, James C., et al. (See Houts, Edward, assignor.)					
Steckel, Theodore, Bethlehem, Pa. Shutter-binge.....	417,111	Dec. 10	1419	367	49 1659
Steele, William H. (See Merz and Steele.)					
Steedman, James P., T. Partridge, Hamilton, Ontario, Canada, and A. Turnbull, New Britain, Conn., assignors to E. & C. Gurney Company, (limited), Ontario, Canada. Platform-scales.....	413,572	Oct. 22	2645	686	49 535
Steel, Robert P., Philadelphia, Pa. Refrigerator.....	413,578	Oct. 22	2653	688	49 536
Steel, Erase Car Wheel Company. (See Dunstetter, Jacob, assignor.)					
Steele, James H., Butte City, Mont. Brick-carrier.....	416,490	Dec. 3	414	111	49 1452
Steele, Michael H., Greensburg, Pa. Furnace.....	414,296	Nov. 12	944	254	49 941
Stein, Benjamin F., Cleveland, Ohio. Wagon-scales.....	416,761	Dec. 10	911	245	49 1557

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Di. g.	Vol.	Page.
Stein, Nathan. (See Freedman, Hayman, assignor.)						
Stein, William E. (See Zerfas and Stein.)						
Steininger, Jacob A., Creston, Iowa. Automatic pump-governor	417,112	Dec. 10	1420	388	49	1659
Steinmetz, Conrad P., Mitchell, Dak. Ter. Meat-bolt	414,925	Nov. 12	1138	297	49	971
Steinmetz, Cornelia. (See Steinmetz, William R. and C.)						
Steinmetz, William R. and C., Baltimore, Md. Catametal sack	415,475	Nov. 19	1909	517	49	1139
Stephens, Aulton P., New Brunswick, N. J. Surface for grinding and crushing	412,556	Oct. 8	1155	286	49	321
Stephens, Edward F., Austin, Nev. Car-coupling	417,522	Dec. 17	2054	548	49	1790
Stephens, Edward F., assignor of one-fourth to J. Spencer, Austin, Nev. Automatic car-brake	417,523	Dec. 17	2056	548	49	1790
Stephens, John O., St. Joseph, Mo. Truss	415,973	Nov. 12	1572	353	49	1013
Stephens, John U., assignor of three-fourths to W. M. and J. W. Tiller and J. A. Bronch, Point Peter, Ga. Plow	415,329	Dec. 31	3386	883	49	2064
Stephenson, Elam O., assignor of one-half to J. G. Riddle and J. M. Stephenson, Mount Pleasant, Tex. Device for digging wells or post-holes	414,873	Nov. 12	1065	273	49	955
Stephenson, John, New York, N. Y. Grip-hoisting arch-bar for cable cars	411,907	Oct. 1	118	49	39	
Stephenson, John, New York, N. Y. Grip-brake	412,559	Oct. 8	1136	296	49	931
Stephenson, John, New York, N. Y. Wheel-brake	412,560	Oct. 8	1137	296	49	931
Stephenson, John, New York, N. Y. Truck-brake	412,561	Oct. 8	1138	297	49	931
Stephenson, John, New York, N. Y. Car draw-head	413,260	Oct. 22	2194	778	49	446
Stephenson, John, New York, N. Y. Cable-car truck	414,733	Nov. 12	189	220	49	915
Stephenson, John M., et al. (See Stephenson, Elam G., assignor.)						
Stern, Edward, Philadelphia, Pa. Water-wheel	413,976	Oct. 29	3244	847	49	666
Stern, John, Detroit, Mich. Sheet-metal vessel	415,984	Nov. 26	2784	749	49	1306
Stern and Co., S. S. (See Wojtkow, Louis, assignor.)						
Steueralwald, Philip, and A. Cording, Sannemitt, Ill. Baling-press	415,476	Nov. 19	1909	518	49	1140
Stevens, Arlin V., Camington, Mass. Cutting-press	415,477	Nov. 19	2001	518	49	1140
Stevens Arms and Tool Company, J. (See Mark and Stevens, J.)						
Stevens, Arthur L., Philadelphia, Pa., assignor of one-half to Remington Machine Company, Wilmington, Del. Machine for the manufacture of paper bags	415,950	Nov. 26	2741	716 717	49	1297
Stevens, Arthur L., Philadelphia, Pa., assignor of one-half to Remington Machine Company, Wilmington, Del. Printing device	415,985	Nov. 26	2785	729	49	130
Stevens, Emanuel, Brussels, Belgium, assignor of one-half to J. M. Burnup, London, England. Combined gas and compressed-air engine	414,173	Oct. 29	3543	925	49	729
Stevens, Frank, Philadelphia, Pa. Electric valve device	411,968	Oct. 1	194	49	40	
Stevens, Frank, et al. (See Gardner, Addison E., assignor.)						
Stevens Fruit Packing Case Company. (See Stevens, John L., assignor.)						
Stevens, John C., Mount Vernon, assignor to J. F. Lovejoy, New York, N. Y. Automatic vending-machine	412,993	Oct. 15	1774	463 464 465	49	359
Stevens, John L., San Francisco, Cal., assignor to Stevens Fruit Packing Case Company. Fruit-packing case	415,074	Nov. 12	1353	353	49	1013
Stevens, John M., Philadelphia, Pa. Automatic stop-motion for knitting-machines	413,741	Oct. 29	2697	754	49	594
Stevens, Le Roy, Alhambra, N. Y. Arrow	412,428	Oct. 8	944	248	49	191
Stevens, Levi, Boston, Mass. Distilling oils and oleous substances	414,001	Nov. 5	649	109	49	869
Stevens, William L., Woodstown, and M. B. Ayars, Salem, N. J.; said Stevens assignor to said Ayars. Can-filling machine	417,666	Dec. 17	2297	608	49	1835
Stevenson, Robert, San Francisco, Cal. Centrifugal auxiliary propeller	417,888	Dec. 24	2965	604	49	1903
Stevenson, Samuel M., Bastrop, La. Self-loading dirt-cart	416,964	Dec. 10	1198	328	49	1615
Stevenson, William. (See Sangulnotti and Stevenson.)						
Steward, Aurelius, assignor to Wheeler & Wilson Manufacturing Company, Bridgeport, Conn. Tension mechanism for sewing-machines	415,951	Nov. 26	2745	717	49	1298
Stewart & Baker. (See Baker, James S., assignor.)						
Stewart, Duncan D., Manistigue, Mich. Railway-construction machine	418,083	Dec. 24	2906	763	49	1961
Stewart, George R. (See Periz, John W., assignor.)						
Stewart, James D., et al. (See Kent, Artemas A., assignor.)						
Stewart, John. (See Weiss, George W., assignor.)						
Stewart, John L., Philadelphia, Pa., assignor, by mesne assignments, to Welbach Incandescent Gas Light Company, Gloucester City, N. J. Incandescent gas lamp or burner	416,534	Dec. 3	542	147	49	1477
Stewart, John L., Philadelphia, Pa., assignor, by mesne assignments, to Welbach Incandescent Gas Light Company, of New Jersey. Incandescent gas-burner	417,524	Dec. 17	2059	540	49	1791
Stewart, Revere B., Warren, Pa. Compound tool	418,541	Dec. 31	3022	949	49	2113
Stewart, Robert Jr. (See Hambrug, Ephraim, assignor.)						
Stewart, Samuel S., Philadelphia, Pa. Banjo-thimble	413,579	Oct. 22	2654	688	49	537
Stewart, Walter H., Franklin, N. H., assignor to M. Wright, Norristown, Pa. Circular-knitting machine	413,101	Oct. 15	1935	506	49	390
Stewart, William C., Bellaire, Ohio. Tubular lantern	411,937	Oct. 1	232	59	49	47
Stich, Joseph H., Los Angeles, Cal. Spike-socket	417,578	Dec. 17	2176	578	49	1813
Stridhan, James S., Floyd, Tex. Coffee-pot	418,300	Dec. 31	3387	883	49	2064
Stier, Wilhelm, Leipzig, Germany. Letter-file	412,502	Oct. 8	1130	297	49	922
Stiles, Frederick, Burnett, Tex. Filter and water-purifier	415,947	Nov. 26	2703	706	49	1288
Stiles, James A., St. Johns, Mich. Locomotive steam-engine cross-head	416,966	Dec. 10	1199	328	49	1616
Stiles, James A., and G. C. Cross, St. Johns, Mich. Engine-link	416,965	Dec. 10	1199	328	49	1615
Stille, Theodore J. and O. Q., St. Louis, Mo. Door-mat	415,801	Nov. 26	2510	655	49	1347
Stillson, Daniel C., Somerville, Mass. Automatic fire-extinguisher	417,599	Dec. 17	2176	578	49	1813
Stillwell, Albert H., Philadelphia, Pa. Packing-box	412,429	Oct. 8	945	248	49	192
Stillwell, Charles E., assignor to Union Paper Bag Machine Company, Philadelphia, Pa. Paper-bag machinery	412,634	Oct. 22	2740	710	49	554
Stillwell, Charles B., assignor to Union Paper Bag Machine Company, Philadelphia, Pa. Paper-cutting device	414,204	Nov. 5	127	30	49	763
Stillwell, Charles B., assignor to Union Paper Bag Machine Company, Philadelphia, Pa. Paper-bag machinery	417,316	Dec. 17	1779	477 478 479	49	1736
Stillwell, Randolph W., New York, N. Y. Corset-fastening	413,977	Oct. 29	3246	848	49	666
Stiner, Clarence M., et al. (See Thorpe, Joseph, assignor.)						
Stinson, Charles K., Chelsea, Mass., assignor to Bissell Carpet Sweeper Company, Grand Rapids, Mich. Carpet-sweeper	413,794	Oct. 29	2973	715	49	608
Stirling, James S., et al. (See Hambrug, Ephraim, assignor.)						
Stirn, Carl P. (See Jarndick, Max, assignor.)						
Stirn, Carl P. (See Thorpe, Joseph, assignor.)						
Stirn, Carl P., New York, N. Y. Photographic camera	418,343	Dec. 31	3314	866	49	2049
Stirn, Carl P., New York, N. Y., assignor of one-half to J. Thorpe, Jersey City, N. J. Photographic camera	416,650	Dec. 3	749	203	49	1516

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	De. &	Vol.	Page.
Sitzel, Frederick, assignor to American Semaphore Company, Louisville, Ky. Electric semaphore-setting apparatus	417,525	Dec. 17	2060	549	49	1791
Sitzel, Frederick, and C. Weinedel, assignors to American Semaphore Company, Louisville, Ky. Electric semaphore-setting apparatus	417,536	Dec. 17	2064	550	49	1792
Silvers, Rufus M., New York, N. Y. Carriage-seat	416,873	Dec. 10	1073	590	49	1569
Stock, Frank, et al. (See Cavallaro, Francesco, assignor.)						
Stockstrom, Charles A. (See Stockstrom, Louis, assignor.)						
Stockstrom, Charles A., assignor of one-half to L. Stockstrom, St. Louis, Mo. Gasoline-stove attachment. (Reissue.)	11,637	Oct. 22	2753	713	49	557
Stockstrom, Louis. (See Stockstrom, Charles A., assignor.) (Reissue.)						
Stockstrom, Louis, St. Louis, Mo. Self-heating sand-iron	417,601	Dec. 17	2179	579	49	1813
Stockstrom, Louis, assignor of one-half to C. A. Stockstrom, St. Louis, Mo. Attachment for gas-stoves	417,600	Dec. 17	2178	579	49	1813
Stockton Combined Harvester and Agricultural Works. (See Haines, George W., assignor.)						
Stockton Combined Harvester and Agricultural Works. (See Laufenberg, Michael N., assignor.)						
Stockton, Joseph B. (See Pollard and Stockton.)						
Stockwell, Albert, Providence, R. I. Device for operating water-closet or other valves	414,340	Nov. 5	237	59	49	728
Stockwell, Emory. (See Towne, Henry R., assignor.)						
Stockwell, Emory, assignor of one-half to H. K. Towne, Stamford, Conn. Apparatus for separating dust from air	418,542	Dec. 31	3623	946	49	2114
Stockwell, John O., Burlington, Kans., and A. Barrett, Kansas City, Mo. Anti-induction system	413,795	Oct. 29	2975	775	49	609
Stoddard, Arthur H. (See Parker and Stoddard.)						
Stoddard, David S., Waterbury, Conn. Stone-gatherer	416,515	Dec. 3	544	{ 147 } { 148 }	49	1477
Stoddard Manufacturing Company. (See Little, Peter E., assignor.)						
Stoepelwerth, Edward and H. St. Louis, Mo. Window-blind	411,072	Oct. 1	280	72	49	57
Stoepelwerth, Henry. (See Stoepelwerth, Edward and H.)						
Stoererau, Henry F., Davenport, Iowa. Rotary churn	413,978	Oct. 29	3247	848	49	606
Stohlmann, Frederick A., Brooklyn, assignor to G. Tiemann & Co., New York, N. Y. Constructing surgical instruments of glass	418,247	Dec. 31	3164	829	49	2020
Stokes, Charles H., assignor of one-half to G. W. Lowden, Baltimore, Md. Guard for circular saw mills	417,304	Dec. 10	1504	423	49	1687
Stone, Addison C., Chicago, Ill. Passenger-recorder for railway-cars	418,201	Dec. 31	3338	884	49	2005
Stone, Charles E., Baltimore, Md. Cash-recorder	415,566	Nov. 19	2169	571	49	1177
Stone, Draper, Pittsford, N. Y. Weather-strip for windows	412,310	Oct. 1	618	169	49	124
Stone, Dudley G., Negaunee, Mich. Dough mixer and kneader	413,417	Oct. 22	2428	631	49	492
Stone, Dudley G., Negaunee, Mich. Wash-board	413,418	Oct. 22	2429	631	49	492
Stone, Frank J. (See Bradbury and Stone.)						
Stone, Frank P., Chicago, Ill. Lock-strike	417,845	Dec. 24	3544	670	49	1802
Stone, James. (See Gardner and Stone.)						
Stone, James, et al. (See Gardner, Marshall, assignor.)						
Stone, James, Aurora, Ill. Making button-hole strips	415,424	Nov. 19	1910	497	49	1121
Stone, James, assignor of two-thirds to A. M. Ball, Aurora, and E. Florsheim, Chicago, Ill. Button-hole strip and making the same	414,602	Nov. 5	651	169	49	869
Stone, James B., Worcester, Mass. Wire rope or cable	412,994	Oct. 15	1781	465	49	329
Stone, John B., Providence, R. I. Dress-form	417,844	Dec. 24	3543	669	49	1801
Stone, Joseph H., assignor to Davis & Furber Machine Company, Andover, Mass. Warming-reel	417,844	Dec. 24	3543	669	49	1801
Stone, Oren. (See Skinner, John, assignor.)						
Stone, Royal B., Moundport, Ill. Organ attachment	415,425	Nov. 19	1913	498	49	1121
Stone, Zebuloe E., Mount Pleasant, Tex. Plow	414,436	Nov. 5	497	108	49	836
Stonchurn, N. E. (See Reynolds, Howard W., assignor.)						
Storckhouse, Albert, and K. Victor, Grand Rapids, Mich. Furniture-caster	413,574	Oct. 22	2647	626	49	535
Storer, Andrew W., Mason City, Iowa. Band-cutting	414,437	Nov. 5	498	108	49	836
Storey, Imle E., Boulder, Colo. Friction-gear	418,297	Dec. 31	3297	847	49	2034
Storrs, Charles F., Wheaton, assignor to F. K. Hall, Chicago, Ill. Truss	418,660	Dec. 31	3798	990	49	2148
Storrs, Herbert, Kearney, N. J. Nut cracker and picker	417,951	Dec. 24	3703	712	49	1922
Stott, James, London, England. Combined gas-regulator and safety stop-valve	418,543	Dec. 31	3624	946	49	2114
Stott, William P., Philadelphia, Pa. Soap and brush holder	416,967	Dec. 10	1200	329	49	1616
Stouffer, Amos. (See Strickler, Phillips, and Stouffer.)						
Stover, Arthur L., Hamilton, Ohio. Car-coupling	413,102	Oct. 15	1940	507	49	391
Stover Bicycle Manufacturing Company. (See Stover and Hance, assignors.)						
Stover, Cochran C., Bradford, assignor of one-half to J. J. B. Fink, Pittsburg, Pa. Connecting device for wet-lumping rigs	412,136	Oct. 1	511	135	49	103
Stover, Daniel C., and W. A. Hance, assignors to Stover Bicycle Manufacturing Company, Freeport, Ill. Bicycle	418,142	Dec. 24	3604	{ 787 } { 788 }	49	1978
Stowe, William, and J. Uhl, Ore City, Colo. Combination-tool	418,358	Dec. 31	3302	872	49	2055
Stor, John M., Augusta, Ga. Crib attachment for bedsteads	413,107	Oct. 15	1947	508	49	392
Strang, Julian A., administrator. (See Geiger, Jacob.)						
Strang, Lew K., assignor of one-half to J. D. Weldon, Haverhill, Mass. Beading-machine for shoes	416,306	Dec. 3	324	60, 61	49	1415
Strasser, Carl A., assignor of one-half to J. Schroeder, Baltimore, Md. Boot or shoe heel	413,419	Oct. 22	2430	631	49	493
Straton, James. (See Browne, Patrick, assignor.)						
Stratton, George W., and G. McCulloch, Altoona, Pa. Grinding-machine	415,004	Nov. 12	1252	{ 327 } { 328 }	49	994
Straubinger, Johann, Newark, N. J. Padlock	417,602	Dec. 17	2179	579	49	1813
Strauss, Carl T., Riga, Russia. Levelling-instrument	413,103	Oct. 15	1942	507	49	392
Stray, Simon. (See Waxler, J. and W. F., assignors.)						
Strawson, George F., Newbury, county of Berks, England. Agricultural sprinkling-machine	415,387	Nov. 19	2191	{ 571 } { 572 }	49	1178
Strayer, David E., Toledo, Ohio. Window-air	416,080	Nov. 26	2943	796	49	1337
Stream, Edgar L., New Orleans, La. Disinfecting apparatus	417,113	Dec. 10	1424	{ 328 } { 329 }	49	1660
Strebeck, Elizabeth, St. Louis, Mo. Clothes-sprinkler	418,477	Dec. 31	3335	919	49	2091
Streeper, Daniel H., Morristown, Pa. Electrical door-alarm	412,563	Oct. 8	1140	298	49	332
Streeter, Daniel A., Waterbury, Conn. Apparatus for laying pipe in trenches	413,979	Oct. 29	3248	848	49	607
Streeter, George D., Waco, Tex. Oil-barrel supports	415,075	Nov. 12	1353	353	49	1014
Streeter, George M., Philadelphia, Pa., and A. D. Schlesinger, College Point, N. Y. Truss	415,152	Oct. 15	1923	527	49	406
Streeter, Herbert A. (See Amet, Edward H., assignor.)						
Streuber, Gustav A. F., Oakland, assignor to himself and D. Rutherford, San Francisco, Cal. Filter	417,399	Dec. 17	1820	498	49	1751

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & Val.	Page.	
Strickler, Louis, assignor of one-half to G. C. Wetherbee, Detroit, Mich. Brush-nailing machine	412,305	Oct. 8	764	{ 198 199 }	49	156
Strickler, Abraham H., J. Phillips, and A. Stouffer, assignors to American Manufacturing Company, Warrenborough, Pa. Potable fruit-drink	414,458	Nov. 5	429	108	49	826
Strickler, John D., assignor to himself, H. Rogers, Boston, and L. O. Dion, Natick, Mass. Riveting	415,885	Nov. 26	3625	687	49	1271
Strickler, Joseph P. (See Tschopp, Henry M. and C. O., assignors.)						
Strobel, Victor O. (See Gordon and Strobel.)						
Strobel, Victor O., Philadelphia, Pa. Hot-blast stove	413,247	Oct. 22	2167	564	49	442
Strobel, Victor O., Philadelphia, Pa. Hot-blast stove	414,734	Nov. 12	851	220	49	915
Strobel, Victor O., Philadelphia, Pa. Hot-blast stove	415,226	Nov. 19	1603	413	49	1062
Strom, Axel A., Austin, assignor to Strom Manufacturing Company, Chicago, Ill. Railway-frog	415,964	Nov. 26	2787	730	49	1307
Strom, Axel A., Austin, assignor to Strom Manufacturing Company, Chicago, Ill. Railway-frog	414,126	Oct. 29	3466	900	49	713
Strom, Axel A., Austin, assignor to Strom Manufacturing Company, Chicago, Ill. Railway-frog	414,127	Oct. 29	3467	901	49	713
Strom, Axel A., Austin, assignor to Strom Manufacturing Company, Chicago, Ill. Railway-frog	416,669	Dec. 3	803	219	49	1529
Strom, Axel A., Austin, assignor to Strom Manufacturing Company, Chicago, Ill. Railway-frog	416,690	Dec. 3	804	219	49	1529
Strom, Axel A., Austin, assignor to Strom Manufacturing Company, Chicago, Ill. Railway-frog	416,691	Dec. 3	805	220	49	1529
Strom Manufacturing Company. (See Strom, Axel A., assignor.)						
Strong, Mulford R. (See Farley and Strong.)						
Strowley, William, Brighton, county of Sussex, assignor to himself, and S. Carlton, Swindon, England. Wheel for railway vehicles	415,745	Nov. 26	3428	634	49	1232
Strome, James C., Louisville, Ky. Cleaning apparatus for filters	417,371	Dec. 17	1819	428	49	1744
Strowbridge, Lydia A. (See Strowbridge, Silas H., assignor.)						
Strowbridge, Silas H., assignor to L. A. Strowbridge, Cortland, N. Y. Positive shuttle-motion for looms	417,687	Dec. 17	3298	609	49	1836
Stuart, Albert H., and E. Willard, Boston, Mass. Piano-section	415,426	Nov. 19	1914	498	49	1121
Stuart, Robert J., New Hamburg, N. Y. Brick-pallet	414,924	Nov. 12	1139	897	49	972
Stuckel, William C. F., Rockafeller, Ill. Grinding-machine	415,886	Nov. 26	3626	627	49	1271
Stundwell, Joseph A. K., Brooklyn, N. Y. Game attachment for tables	419,684	Oct. 29	2831	738	49	580
Stump, Ira E., Richville, assignor of one-half to C. S. Pierce, Cleveland, Ohio. Hand-car.	413,742	Oct. 29	2600	754	49	594
Sturgeon, Wilson H. (See Sayers and Sturge.)						
Sturgeon, John C., assignor of one-fourth to S. A. Davenport, Erie, Pa. Pipe or hose coupling	417,114	Dec. 10	1426	389	49	1660
Sturgeon, William H. (See Roberts, John N., assignor.)						
Sturges, F. C., et al. (See Side, Edgar, assignor.)						
Sturges, Samuel, West Manayunk, assignor to Montgomery Manufacturing Company, Philadelphia, Pa. Suction-sweeping machine	418,143	Dec. 24	3007	788	49	1979
Stutte, John G., San Diego, Cal. Colored tire	415,479	Nov. 19	3003		49	1140
Subers, Thomas N., Philadelphia, Pa., assignor of three-fourth to S. B. Coughlin, Burlington, N. J. Journal for vehicles	412,995	Oct. 15	1782	465	42	360
Sudlow, Samuel, Brooklyn, N. Y. Ash-sifter	417,899	Dec. 24	3606	686	49	1904
Suerstedt, Hermann, Brooklyn, N. Y. Calipers or dividers	414,954	Nov. 12	1193	308	49	979
Sugg, David W., Westminster, England. Construction of gas-lamps	419,324	Oct. 31	3259	860	49	2045
Suggest, William, West Stratford, Conn. Chair	411,938	Oct. 1	254	59	49	47
Sullenger, James F. (See Brandes, Henry H., assignor.)						
Sullivan, Cornelius P., assignor of one-half to F. W. Lowe, Boston, Mass. Locking device for elevators	414,128	Oct. 29	3468	901	49	714
Sullivan, John D., assignor of one-half to W. W. Sutcliffe, New Orleans, La. Feed-water heater and filter	412,137	Oct. 1	512	135	49	103
Sullivan, Thomas F. (See Dunton, Orrville L., assignor.)						
Sullivan, Timothy, Fall River, assignor to Dutcher Temple Company, Hopedale, Mass. Loom-temple	416,092	Dec. 3	806	220	49	1530
Sullivan, Timothy J., New Orleans, La. Stave-former	417,003	Dec. 17	2140	579	49	1813
Sullivan, Warren R. (See Seardsley, Frank E., assignor.)						
Sully, Thomas E. (See Roberts, Edward F., assignor.)						
Summerhayes, Emeline C., Somerville, Mass. Toilet lotion	415,840	Nov. 26	2876		49	1860
Summers, William T., Louisville, Ky. Horse-collar fastener	412,805	Oct. 15	1310	393	49	309
Summer, Adien E. (See Davis, John S., assignor.)						
Susmühl, Francis G., assignor of two-thirds to A. G. Dalley and J. D. Hawks, Detroit, Mich. Coal-chute	416,018	Nov. 26	2836	{ 743 743 }	40	1317
Susmühl, Francis G., Detroit, Mich., assignor of one-half to E. R. Hutchins, Chicago, Ill., and C. H. Hutchins, Detroit, Mich. Manufacture of metal washers	417,952	Dec. 24	3704	712	49	1922
Susmühl, Francis G., assignor of one-half to E. and C. H. Hutchins, Detroit, Mich. Car-brake hanger	417,953	Dec. 24	3706	712	49	1922
Sutcliffe, William W. (See Sullivan, John D., assignor.)						
Sutherland, Robert D. (See Hammond and Sutherland.)						
Sutphen, George E., Annapolis, Ill. Hammock-spreader	416,242	Dec. 3	130	36	49	1294
Sutphen, John H. (See Wittek, Valentine, assignor.)						
Sutter, John D. (See Robinson, Frederick E., assignor.)						
Sutton, Lester H., and A. L. Collins, Kansas City, Mo. Grindstone attachment	417,754	Dec. 24	3406	{ 633 634 }	49	1865
Sutton, William A., New York, N. Y. Skating	414,989	Oct. 29	3414	887	49	702
Svenson, John A. F., Scranton, Pa. Drawing-table	415,091	Nov. 19	2947	612	49	1268
Svenson, Claes A., assignor of one-half to W. W. Oliver, Buffalo, N. Y. Machine for enlarging finger-rings	413,465	Oct. 22	2492	646	49	504
Swab, Allen, Elizabeth, Pa. (See Magruder, Griffith, and Swafford.)	412,430	Oct. 8	945	248	49	192
Swafford, Levi W. (See Magruder, Griffith, and Swafford.)						
Swan, Alfred M., Joliet, Ill. Furniture-caster	414,603	Nov. 5	652	169	49	870
Swan, George E. (See Munger, Ernest A., assignor.)						
Swan, James. (See Whitner, William S., assignor.)						
Swan, Joseph E., et al. (See Eichmeyer, Joseph C., assignor.)						
Swan, Joseph W., Lauriston, Bromley, county of Kent, England, assignor, by mesne assignments, to Electrical Accumulator Company of New York. Secondary battery (Reissner)	11,947	Dec. 17	2318	612	49	1840
Swart, Frank J., Auburn, N. Y. Carpet-stretcher	416,233	Dec. 3	351	93	49	1448
Swartwout, George D., assignor to M. F. Swartwout, Port Richmond, N. Y. Splittoon	415,256	Nov. 19	1645	425	49	1070
Swartwout, Mary F. (See Swartwout, George D., assignor.)						
Swartz, George F., Milton, Pa. Adjustable holder for hooks	415,288	Nov. 19	2192	572	49	1178
Swaze, Robert, et al. (See Gardiner, Addison E., assignor.)						
Sweeney, Andrew J., Wheeling, W. A. Distilling apparatus	415,227	Nov. 19	1604	414	49	1063

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Sweeney, Andrew J. and J. M., Wheeling, W. Va. Table for the manufacture of plate-glass.	415,228	Nov. 19	1605	414	49	1063
Sweeney, John M. (See Sweeney, Andrew J. and J. M.)						
Sweeney, Thomas P., Sacramento, Cal. Automatic pressure-retaining valve for air-brakes.	416,516	Dec. 3	546	148	49	1478
Sweeney, Edward M., assignor to E. Phillips & Sons, South Hanover, Mass. Nail.	413,860	Oct. 29	3250	919	49	607
Swoesey, Thaddeus, Bradford, Pa. Larkstand.	418,544	Dec. 31	3636	847	49	2114
Sweetland, William L., assignor to Hoggson & Pettis Manufacturing Company, New Haven, Conn. Check-law.	414,955	Nov. 12	1183	309	49	979
Swift, Benjamin F., Tipton, Ind. Portable worm-fence.	417,205	Dec. 10	1565	425	49	1687
Swindell, Henry, Allegheny, Pa. Heating-furnace.	412,936	Oct. 15	1699	443	49	343
Swindell, Henry, S. R. Smyth, and J. B. Swindell, Allegheny, Pa. Regenerative furnace.	414,874	Nov. 12	1066	273	49	956
Swindell, James B. (See Swindell, Smyth, and Swindell.)						
Swindell, William, Allegheny, Pa. Regenerative-furnace for boilers.	413,691	Oct. 29	9202	738	49	580
Swinton, Charles E., New York, N. Y. Driving-wheel.	412,937	Oct. 15	1700	444	49	344
Swinert, Marcus A., Washington, Ind. Feed-regulator.	416,208	Dec. 10	1301	329	49	1616
Swinerton, James, Dallas, Tex. Cotton-elevator.	418,064	Dec. 24	3907	763	49	1902
Swinton, Alan A. C. (See Cox-Walker and Swinton.)						
Sylvester, Isaac, assignor of one-half to R. A. Gray, Colusa, Cal. Cultivator.	413,836	Oct. 29	3629	789	49	619
Symington, Thomas H., Baltimore, Md. Oilier for railway-axle bearings.	414,783	Nov. 12	917	237	49	928
Symington, William. (See Morrow and Symington.)						
Symington, William N., Brooklyn, N. Y. Coal cutting machinery.	413,796	Oct. 29	2976	775	49	609
Symonds, Herbert, assignor to Meaker & Brothers, St. Louis, Mo. Sheet-metal column.	416,693	Dec. 3	807	220	49	1530
Taber, Freeman A., assignor to Star Brass Manufacturing Company, Boston, Mass. Lamp-burner.	415,952	Nov. 26	3746	717	49	1298
Tabor, Harris, assignor to Tabor Manufacturing Company, New York, N. Y. Metal-founding machine.	413,153	Oct. 15	2923	327	49	408
Tabor Manufacturing Company. (See Taber, Harris, assignor.)						
Tabor, Thomas H., Ellijay, Ga. Seed planter.	413,806	Oct. 15	1511	394	49	340
Tack, Oscar H., Stevens Point, Wis. Combined tool.	418,065	Dec. 24	2908	763	49	1902
Taft, Edward A., Evanston, Ill. Hose.	417,795	Dec. 14	2472	651	49	1878
Taft, Edward L., assignor of one-half to H. M. Rich, Gardiner, Mass. Rattan furniture.	414,784	Nov. 12	918	238	49	928
Taft, George W., Kennett Square, Pa. Machine for grinding and polishing road-scraper blades, &c.	411,520	Oct. 1	99	30, 47	49	22
Taft, George W., Kennett Square, Pa. Machine for bending road-scraper blades.	411,940	Oct. 1	239	61	49	49
Taft, George W., Kennett Square, Pa. Mechanism for bending metal bars.	411,941	Oct. 1	242	62	49	49
Taft, George W., Kennett Square, Pa. and E. L. Lathrop, Fort Wayne, Ind., assignors to American Road Machine Company, Kennett Square, Pa. Machine for making, repairing, and clearing roads.	411,939	Oct. 1	235	50, 60	49	48
Taft, Gustavus E., and H. F. Woodmaney, Whitinsville, assignors, by mesne assignments, to Sawyer Spindle Company, Boston, Mass. Support for spinning-frame spindles.	412,996	Oct. 15	1783	466	49	360
Tainter, Charles S., Washington, D. C. Speed-regulator.	416,969	Dec. 10	1292	329	49	1616
Tait, Felix B., and J. Gross, Decatur, Ill. Corn-planter.	412,365	Oct. 8	796	199	49	157
Talbot, Daniel H., Sioux City, Iowa. Cattle-tag.	412,431	Oct. 8	946	249	49	192
Talbot, Daniel H., Sioux City, Iowa. Floor for railway-cars.	414,927	Nov. 12	1140	299	49	972
Talbot, Frederick J., Ramnour Park, Sheffield, county of York, England. Nut-lock.	413,580	Oct. 22	3654	659	49	537
Talcott, William A., et al. (See Young, Charles H., assignor.)						
Tallmadge, James W., Boston, Mass. Carbureting-lamp.	412,318	Oct. 8	834	218	49	170
Tallman, Frank G., Beaver Falls, Pa. Machine for coiling wire-rods.	412,564	Oct. 8	1140	299	49	232
Tallman, Frank G., Beaver Falls, Pa. Device for coiling metal rods.	412,565	Oct. 8	1142	299	49	232
Tallman, George W., New York, N. Y. Rein-button.	415,005	Nov. 12	1254	324	49	194
Tallman, Henry C., Cranston, assignor to C. F. W. M. Sherman, Providence, R. I. Mold for ingots.	412,566	Oct. 8	1144	299	49	232
Taugenber, Christian, assignor to himself and W. M. Sherman, Chicago, Ill. Portable screening flour-bin.	413,743	Oct. 29	2910	755	49	505
Tanner, Amos, Truro, Ill. Fire-wood-sawing machine.	412,432	Oct. 8	947	249	49	192
Taplin, Alvin, Forestville, assignor to Bristol Brass and Clock Company, Bristol, Conn. Ring or ball for suspending or lifting vessels.	413,981	Oct. 29	3251	849	49	607
Taplin, Alvin, assignor to Bristol Brass and Clock Company, Forestville, Conn. Wick-raiser for lamps.	415,400	Nov. 19	1871	487	49	1113
Taplin, John L., Circleville, assignor to J. A. Jeffrey, Columbus, Ohio. Carrier.	413,635	Oct. 22	974	710	49	555
Tapp, Lucy L., Madisonville, Ky. Device for grinding mower and reaper knives.	418,096	Dec. 24	2900	764	49	1902
Tapper, James T., Sandersville, Ga. Landside for plows.	416,431	Dec. 3	414	111	49	1433
Tarbutt, Percy, assignor to Harden Star Lewis & Sinclair Company, (limited,) London, England. Ejector oil-vapor lamp.	416,632	Dec. 3	752	203	49	1519
Tatham, Henry R. (See Tatham, James, assignor.)						
Tatham, James, assignor of one-half to H. B. Tatham, Philadelphia, Pa. Conduit for electrical conductors.	417,688	Dec. 17	2209	609	49	1836
Taylor, Amos B. (See Tirrell and Taylor.)						
Taylor, Arthur M., Niles, Mich. Well or cistern cleaning machine.	412,211	Oct. 1	619	161	49	124
Taylor & Bramley. (See Bramley, Taylor, assignor.)						
Taylor, Brownlee W. (See Berne, Arthur W., assignor.)						
Taylor, Charles C., New York, N. Y. Suspensory garment.	416,970	Dec. 10	1304	330	49	1617
Taylor & Dean. (See Fross, Louis, assignor.)						
Taylor, Edward W., McPherson, Kans. Adding-machine.	417,954	Dec. 24	2708	713	49	1923
Taylor, Edwin W., Charlottetown, Prince Edward Island, Canada. Electric door-alarm.	416,971	Dec. 10	1304	330	49	1617
Taylor, Elbert C., and D. N. Lightfoot, assignors of one-half to J. S. Lightfoot, A. W. Mitchell, J. R. Akins, G. F. and D. G. Kewer, Humansville, Mo. Post-hole digger.	413,108	Oct. 15	1947	509	49	393
Taylor, Eugene H. (See Collins and Taylor.)						
Taylor, Eugene H., Lynn, assignor to American Shoe Tip Company, Boston, Mass. Machine for tumbling-boxes.	418,144	Dec. 24	3009	788	49	1979
Taylor, Eugene H., Lynn, assignor to American Shoe Tip Company, Boston, Mass. Staple-making machine.	418,145	Dec. 24	3010	789	49	1979
Taylor, Francis D., Brockville, Ontario, Canada. Mold for casting.	413,815	Oct. 29	3003	764	49	614
Taylor, Frederick. (See White and Dudley, assignors.)						
Taylor, Frederick W., Philadelphia, Pa. Support for lawn-tennis nets.	415,825	Nov. 26	2542	665	49	1254
Taylor, Frederick W., Philadelphia, Pa. Tool-feeding mechanism for lathes.	417,527	Dec. 17	2069	551 352	49	1792

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Taylor, George H., Liverpool, county of Lancaster, England. Furnace.....	414,604	Nov. 5	633	169	49	870
Taylor, Harrison H., assignor to Detroit Machine Screw Works, Detroit, Mich. Machine for turning the ends of pieces of metal.....	412,433	Oct. 8	948	170	49	193
Taylor, Harrison H., assignor to Michigan Radiator and Iron Manufacturing Company, Detroit, Mich. Machine for tapping radiator-loops.....	416,517	Dec. 3	548	350	49	1478
Taylor, John. (See Davidson and Taylor.)				148		
Taylor, John S., assignor of one-half to D. Gray, Bartle, Ind. Seed-planter and fertilizer-distributor.....	412,307	Oct. 8	768	149	49	157
Taylor, Kemner, assignor of one-half to J. Meagher, Frankfort, Ky. Whisky-tester.....	413,154	Oct. 15	3025	199	49	408
Taylor, Oliver H., Brooklyn, N. Y. Car-ventilator.....	413,816	Oct. 29	3003	200	49	614
Taylor, Robert S., and M. M. M. Slatery, Fort Wayne, Ind. Automatic synchronous commutator.....	411,840	Oct. 1	103	253	49	823
Taylor, Theodore, and C. H. Lamhkin, Mount Vernon, N. Y. Washing-machine.....	417,955	Dec. 24	2711	713	49	1923
Taylor, Thomas, Glasgow, Scotland, assignor to Eastman Dry Plate and Film Company, Rochester, N. Y. Roller-holder for photographic films.....	414,735	Nov. 12	852	320	49	915
Taylor, Warren H., assignor to Yale & Towne Manufacturing Company, Stamford, Conn. Lock.....	412,997	Oct. 15	1785	221	49	361
Taylor, Warren H., assignor to Yale & Towne Manufacturing Company, Stamford, Conn. Lock.....	415,178	Nov. 12	1538	466	49	361
Taylor, William, Allegheny, Pa. Spike.....	411,841	Oct. 1	104	27	49	1041
Taylor, William, Allegheny, Pa. Draw-plate.....	414,060	Oct. 29	3415	713	49	703
Taylor, William, Allegheny, Pa. Wire-nail machine.....	415,480	Nov. 19	3004	518	49	1140
Taylor, William L. (See Darnell, Calvin F., assignor.)				519		
Taylor, William O., Malden, Mass. Letter-box.....	415,746	Nov. 26	2426	220	49	1232
Tecktonius, Emil. (See Sorenson, Carl W., assignor.)						
Tecktonius, Emil C., Racine, Wis. Seeler.....	417,115	Dec. 10	1427	635	49	1660
Teichmann, Richard. (See Del Valle, Eliseo, assignor.)						
Teichmann, Richard, Brooklyn, N. Y. Toy.....	414,965	Nov. 5	128	31	49	763
Teiller, Charles, Paris, France. Apparatus for purifying, aerating, and filtering water, &c.....	417,372	Dec. 17	1829	489	49	1745
Ten Eyck, William, and G. Green, Oakland, Cal. Seal-lock.....	414,605	Nov. 5	655	170	49	870
Tennant, Edward I., Springfield, Ohio. Carriage-coupling.....	414,341	Nov. 5	238	60	49	746
Tenney, Alfred W., Providence, R. I. Split-trimming machine.....	417,604	Dec. 17	2181	560	49	1813
Terrill, Robert W., Conway, Ga. Coffee-pot.....	412,138	Oct. 1	513	135	49	104
Terrill, Delaney E., assignor of one-half to J. F. Hadcock, Copenhagen, N. Y. Advertising and cigar-lighting case.....	414,342	Nov. 5	240	60	49	787
Terry, Ary P., Chicago, Ill. Wheel.....	416,190	Dec. 3	29	18	49	1380
Terry, Charles A. (See Sorenson, Carl W., assignor.)						
Terry, Frederick M., Shiloh, Ga. Wagon-lock.....	414,601	Oct. 29	3418	888	49	703
Terry, Howell P., Brooklyn, N. Y. Sheave.....	415,957	Nov. 26	2789	730	49	1307
Terry, Howell P., assignor to G. W. Blair, Brooklyn, N. Y. Sheave for pulley-blocks.....	412,139	Oct. 1	515	135	49	104
Terry, Le Grand, Honesdale, N. Y. Oil-bath.....	413,876	Oct. 29	3095	896	49	633
Terry, Samuel H., St. Louis, Mo. Metallic pole.....	411,877	Oct. 1	145	38	49	30
Terry, W. H., et al. (See Gentry, John W., assignor.)						
Tesla Electric Company. (See Tesla, Nikola, assignor.)						
Tesla, Nikola. (See Schmidt and Tesla.)						
Tesla, Nikola, assignor of two-thirds to A. S. Brown, New York, N. Y., and C. F. Peck, Englewood, N. J. Obtaining direct from alternating currents.....	413,353	Oct. 22	2340	607	49	474
Tesla, Nikola, assignor to Tesla Electric Company, New York, N. Y. Electro-magnetic motor.....	416,191	Dec. 3	61	18	49	1381
Tesla, Nikola, assignor to Tesla Electric Company, New York, N. Y. Operating electro-magnetic motors.....	416,192	Dec. 3	62	18, 19	49	1381
Tesla, Nikola, assignor to Tesla Electric Company, New York, N. Y. Electro-magnetic motor.....	416,193	Dec. 3	64	19	49	1381
Tesla, Nikola, assignor to Tesla Electric Company, New York, N. Y. Electric motor.....	416,194	Dec. 3	65	19	49	1381
Tesla, Nikola, assignor to Tesla Electric Company, New York, N. Y. Electro-magnetic motor.....	416,195	Dec. 3	66	19, 20	49	1382
Tesla, Nikola, assignor to Tesla Electric Company, New York, N. Y. Electro-magnetic motor.....	418,248	Dec. 31	3165	829	49	2020
Teter, William L., Philadelphia, Pa. Steam-generating apparatus.....	412,951	Oct. 1	390	101	49	79
Tetlow & Broadfield. (See Brook, William F., assignor.)						
Teubner, Charles G., Lexington, Mo. Screw-driver.....	415,481	Nov. 19	3009	520	49	1142
Teufel, Wilhelm, Stuttgart, Württemberg, Germany. Night-chair.....	418,248	Dec. 31	3238	847	49	2020
Teutsch, Gabriel, Madretsch, Switzerland. Pipe-hanger.....	411,942	Oct. 1	246	63	49	50
Thackara, John W., Lincoln, Neb. Boring implement.....	417,116	Dec. 10	1429	339	49	1661
Thackara Manufacturing Company. (See Sawyer, Harry H., assignor.)						
Thackeray, Walter T. W., Wandsworth, county of Surrey, and I. Harn, London, county of Middlesex, England. Tell-tale apparatus for ship-telegraph.....	414,243	Nov. 5	241	60, 61	49	787
Thaden, Herman, Atlanta, Ga. Potato-planter.....	417,605	Dec. 17	2182	580	49	1814
Thaxton, James E. (See Kinard, McKinley, and Thaxton.)						
Thayer, Albert F., Maple Hill, Kans. Apparatus for separating buttermilk from butter.....	411,943	Oct. 1	247	63	49	50
Thayer, David, Boston, Mass. Aerial apparatus.....	417,755	Dec. 24	2407	634	49	1865
Thayer, Dexter J., Pittsburg, Pa. Sand-reel.....	415,676	Nov. 12	1355	354	49	1014
Theffengerdes, Frederick, Mount Union, Iowa. Reel for check-row planters.....	413,692	Oct. 29	2853	739	49	581
Thehrkildsen, Laurits C. (See Luth, William, assignor.)						
Theurer, Jacob F., Milwaukee, Wis. Apparatus for extracting lupuline from hops.....	413,982	Oct. 29	3252	849	49	668
Theurer, Jacob F., Milwaukee, Wis. Apparatus for sterilizing air.....	413,983	Oct. 29	3253	850	49	668
Thihault, Henry, Stockton, Cal. Sickle-grinder.....	416,518	Dec. 3	550	149	49	1479
Thissen, John H., and M. M. Arnold, Omaha, Nebr. Brick-kiln.....	415,482	Nov. 19	3010	520	49	1142
Thoenes, Burchard. (See Cook and Thoenes.)				521		
Thoenes, Burchard, New Orleans, La. Steam-trap.....	413,109	Oct. 15	1948	509	49	393
Thomas, Abner D., Little Rock, Ark. Pneumatic apparatus for handling seed-cotton.....	418,687	Dec. 24	2910	764	49	1969
Thomas, Abner D., Little Rock, Ark. Condenser for cotton gins.....	415,088	Dec. 24	2912	764	49	1963
Thomas, Edmeston V., Kansas City, Mo. Balanced slide-valve.....	416,512	Dec. 10	966	396	49	1571

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Thomas, Edward W., et al. (See Brick, Edward, assignor.)						
Thomas, Henry E., assignor of one-half to F. H. Hausman, San Francisco, Cal. Surf-power machine	416,972	Dec. 10	1905	330	49	1617
Thomas, Henry W., assignor to North Branch Steel Company, Danville, Pa. Rolls for rolling rods, rails, &c.	417,956	Dec. 24	2712	714	49	1923
Thomas, James B., Sulphur Springs, Tex. Car-coupling	418,069	Dec. 24	2913	765	49	1963
Thomas, John B. (See Abraham, Isaac B., assignor.)						
Thomas, John D., Petoskey, Mich. Sled.	414,459	Nov. 5	430	109	49	827
Thomas, John R. (See Woods and Thomas.)						
Thomas, Joshua, Elgin, Ill. Jewelling-tool	415,006	Nov. 12	1255	328	49	905
Thomas, Oscar J., assignor of one-half to J. Seebeck, Peninsula, Ohio. Automatic severing device for pulp-machines.	417,609	Dec. 17	2391	609	49	1836
Thomas, Oscar M. (See Merrill and Thomas.)						
Thomas, Robert S. (See Elam, Thomas, and Hardwick.)						
Thomas, Robert S. (See Elam, Thomas, Crawford, and Hardwick.)						
Thomas, Theophilus F., Grand Cane, La. Railway-tie.	416,081	Nov. 26	2944	766	49	1337
Thomas, Wilhelm. (See Fleischer, Johannes, assignor.)						
Thomas, William H., Jenkintown, Pa. Latch for sliding doors	416,083	Nov. 26	2945	766	49	1337
Thomas, William H., Jenkintown, Pa. Window-screen	416,083	Nov. 26	2946	767	49	1337
Thompson, Frank D. (See Pumpelly, James K., assignor.)						
Thompson, Adrial C., and H. E. Newton, Greeley Center, Nebr. Electric indicator for grain-chins	417,117	Dec. 10	1430	300	49	1661
Thompson, Andrew L., et al. (See Pitts, George W., assignor.)						
Thompson, Avery L. (See Miller, James, assignor.)						
Thompson & Campbell. (See Couch, Perley T., assignor.)						
Thompson, Cass G., East Liverpool, Ohio. Attachment for fragile cooking-vessels	418,090	Dec. 24	2915	765	49	1963
Thompson, David W., Chicago, Ill. Temperature-regulating apparatus	415,907	Nov. 12	1257	329	49	995
Thompson, Ephraim W., Thomaston, Me. Attachment for coffee and tea pots	415,972	Nov. 19	1253	478	49	1105
Thompson, George R. (See Denison, Sylvester P., assignor.)						
Thompson, George W. (See Boyne, James, assignor.)						
Thompson, Hiram E., Minneapolis, Minn. assignor, by mesne assignments, to Consolidated Temperature Controlling Company, of Minnesota. Thermostat.	414,267	Nov. 5	130	31	49	783
Thompson, Isaac M., Franklin, Ind. Gate	412,998	Oct. 15	1767	466	49	384
Thompson, John R., St. Charles, Minn. Harvester.	418,091	Dec. 24	2916	765	49	1964
Thompson, Joseph T., Verona, assignor of one-half to E. Barnard, Rome, N. Y. Rake	418,763	Dec. 10	912	246	49	1557
Thompson, Joshua E., Richmond, Ky. Car-coupling	418,284	Dec. 31	3705	909	49	2139
Thompson, McLeod W., Altoona, Pa. Rail-chair	412,051	Oct. 8	1531	346	49	208
Thompson, Oliver T. (See Johnson, Isaac L., assignor.)						
Thompson, Patrick H., Bradford, Ga. Draft-gear for vehicles	418,638	Dec. 31	3751	980	49	2138
Thompson, Robert, Whitewater, Wis. Farm-gale	417,118	Dec. 10	1431	300	49	1661
Thompson, Robert J., Graudin, Mo. Dog attachment for log-cabs	416,128	Nov. 26	2936	769	49	1335
Thompson, Robert P. (See Thompson, William P. and R. P.)						
Thompson, Walter, Newark, N. J. Muffling attachment for violins	417,292	Dec. 17	1895	457	49	1732
Thompson, William P. and R. P., Philadelphia, Pa. Steam-trap	412,903	Oct. 15	1652	431	49	335
Thomson, Elihu. (See Lemp and Thomson.)						
Thomson, Elihu, Lynn, Mass. Conduit for electric railways	413,294	Oct. 22	2949	584	49	428
Thomson, Elihu, Lynn, Mass. Electric meter	415,747	Nov. 26	2430	635	49	1332
Thomson, Elihu, Lynn, Mass. Electric meter	415,748	Nov. 26	2435	636	49	1333
Thomson, Elihu, Lynn, Mass. Electric transformer	415,749	Nov. 26	2437	636	49	1333
Thomson, Elihu, Lynn, Mass. Electric meter	416,320	Dec. 3	228	78	49	1428
Thomson, Elihu, Lynn, Mass. Induction-coil, transformer, &c.	416,702	Dec. 10	912	246	49	1557
Thomson, Elihu, Lynn, Mass. Light-pressure	416,249	Dec. 31	3166	830	49	2020
Thomson, Elihu, Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Electric measuring-instrument	413,292	Oct. 22	2244	583	49	457
Thomson, Elihu, Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Iron-cased induction-coil for alternating-current transfer	414,266	Nov. 5	139	31	49	783
Thomson, Elihu, and E. W. Rice, Jr., Lynn, Mass. System of electrical distribution	412,253	Oct. 22	2247	583	49	438
Thomson, Elihu, and J. Tregoning, Lynn, Mass. Electric welding clamp	415,395	Nov. 19	1249	450	49	1087
Thomson, Henry C., Boston, Mass. Inkstand	417,373	Dec. 17	1822	469	49	1745
Thomson-Houston Electric Company. (See Hunter, Rudolph M., assignor.)						
Thomson-Houston Electric Company. (See Jenney, Charles D., assignor.)						
Thomson-Houston Electric Company. (See Lemp, Hermann, assignor.)						
Thomson-Houston Electric Company. (See Thomson, Elihu, assignor.)						
Thomson, Judson L., assignor to J. L. Thomson Manufacturing Company, Syracuse, N. Y. Rivet	416,094	Dec. 3	808	220	49	1330
Thomson Manufacturing Company, Judson L. (See Thomson, Judson L., assignor.)						
Thomson Manufacturing Company, Judson L. (See Unheehend, Jacob J., assignor.)						
Thomson, Robert W., and E. M. Phelps, Lynn, Mass., assignors to Consolidated Button Hole Finishing Machine Company, Newark, N. Y. Button-hole finishing and staying machine	416,683	Dec. 3	753	304	49	1519
Thomson, William, Glasgow, county of Lanark, Scotland. Galvanometer	412,140	Oct. 1	513	136	49	104
Thomson, William, Glasgow, county of Lanark, Scotland. Galvanometer	416,654	Dec. 3	754	305	49	1520
Thomson, William, Glasgow, county of Lanark, Scotland. Galvanometer	416,655	Dec. 3	756	306	49	1520
Thomson, William, Glasgow, county of Lanark, Scotland. Galvanometer	416,655	Dec. 3	756	306	49	1520
Thomson, Frank, Davenport, Iowa. Electric-current regulator	412,984	Oct. 29	3254	850	49	668
Thomson, Frank O., Kalosoa, Iowa. Incandescent-electric-lamp socket	416,426	Dec. 31	3442	900	49	2076
Thorne Machine Company. (See Lottis, Thomas J., assignor.)						
Thornton, Henry H., Boston, Mass. Rail, &c., made of staves	412,912	Oct. 1	629	161	49	124
Thornton, Jonathan T., Providence, R. I. Button	415,659	Nov. 19	2204	397	49	1197
Thorne, Joseph. (See Stirn, Carl P., assignor.)						
Thorne, Joseph, Jersey City, N. J., assignor of one-half to C. P. Stirn, Brooklyn, N. Y. Photographic-plate holder	413,682	Oct. 8	1333	347	49	968
Thourot, Alphonse, et al. (See Moore, John, assignor.)						
Thrift, David V., Nevada, Iowa. Animal-trap	413,877	Oct. 29	3096	807	49	633
Throp, George E., New York. Picture-frame	412,663	Oct. 8	1333	347	49	269
Thruener, William. (See Campbell, Francis M., assignor.)						
Thum, Otto and W., Grand Rapids, Mich. Sticky fly-paper	414,606	Nov. 5	657	170	49	870
Thum, Otto and W., Grand Rapids, Mich. Package of fly-paper	416,019	Nov. 26	2829	743	49	1317
Thum, Otto and W., Grand Rapids, Mich. Sticky fly-paper	417,400	Dec. 17	1859	498	49	1732
Thum, William. (See Thum, Otto and W.)						
Thurber, William E., Cleveland, Ohio. Card-holder for cars	418,250	Dec. 31	3167	830	49	2020
Thurmond, William D., and R. M. Goodwyne, Forsythe, Ga. Railway-spike	414,092	Oct. 29	3418	882	49	703
Thurston, Robert H., Ithaca, N. Y. Steam-engine	414,460	Nov. 5	431	100	49	827

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dea.	Vol.	Page.
Tibbitts, John B. (See Bottoms, Turner D., assignor.)						
Tiedemann & Co., George. (See Stobmann, Frederick A., assignor.)						
Tiers, Alexander H., et al. (See Pendleton and Bryson, assignors.)						
Tiers, Cornelius, et al. (See Pendleton and Bryson, assignors.)						
Tiffany, George S., Tecumseh, Mich. Button	415,130	Nov. 12	1427	373	49	1029
Tilghman, Benjamin C., Philadelphia, Pa. (See Mathewson, Jeremiah E., assignor.)						
Tilghman, Benjamin C., Philadelphia, Pa. Cutting metal by electricity	416,873	Dec. 10	1074	290	49	1390
Tilghman, Benjamin C. and R. A., Philadelphia, Pa. Ornamenting glass	415,329	Nov. 19	1606		49	1063
Tilghman, Benjamin C. and R. A., Philadelphia, Pa. Machine for ornamenting glass by means of the sand-blast	415,330	Nov. 19	1607	414	49	1063
Tilghman, Richard A. (See Tilghman, Benjamin C. and R. A.)						
Tilghman, Richard A., et al. (See Mathewson, Jeremiah E., assignor.)						
Tiller, John W., et al. (See Stephens, John U., assignor.)						
Tiller, William M., et al. (See Stephens, John U., assignor.)						
Tillinghast, Pardon W., Providence, R. I. Pencil-sharpener	411,909	Oct. 1	195	50	49	40
Tillotson, A. A. (See Keavy, Thomas E., assignor.)						
Timby, Theodore R., Washington, D. C. Revolving-tower fortification	413,581	Oct. 22	2656	689	49	537
Timby, Theodore R., Washington, D. C. Sighting-platform for revolving turrets	413,582	Oct. 22	2658	690	49	537
Timken, Henry, et al. (See Goldman, Isaac S., assignor.)						
Timms Automatic Car Coupler Company. (See Timms, James, assignor.)						
Timms, James, Columbus, Ohio. Car-coupling	417,347	Dec. 17	1783	479	49	1737
Timms, James, assignor to Timms Automatic Car Coupler Company, Columbus, Ohio. Car-coupling	414,268	Nov. 5	131	31	49	763
Tindall, Charles, assignor of one-half to J. E. Dillide, Utica, Kans. Lifting-jack	415,687	Nov. 19	2343	611	49	1207
Tinker, John E., Mentor, Ohio, and G. T. Benjamin, Chattanooga, Tenn. Forming-machine for manufacturing wooden trays	417,890	Dec. 24	2607	686	49	1904
Tinoco, José M. (See Carraza and Tinoco.)						
Tinoco, Franz L. and H., Vienna, Austria-Hungary, assignors to United States Mine Supplies Company. Percussion-fuse for blasting	414,662	Nov. 5	746	192	49	887
Tirnaun, Hans. (See Tirnaun, Franz L. and H.)						
Tirrell, Jacob P., Boston, Mass., assignor to D. Rousseau, New York, N. Y. Gong or tap-bell	416,243	Dec. 3	131	37	49	1394
Tirrell, Jacob P., and A. B. Taylor, Boston, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Buffer for store-service apparatus	413,967	Oct. 22	2195	579	49	1418
Titcomb, John S., Haverhill, Mass. Turned shoe	415,077	Nov. 12	1356	354	49	1014
Titshaw, Cicero S., Walnut Grove, Ga. Seed-planter	413,211	Oct. 22	2116	550	49	432
Tittmann, Harold H., St. Louis, Mo. Portable seat for water-closets	417,606	Dec. 17	2183	381	49	1814
Titus, Charles E., Warren, Pa. Box-pasting machine	415,660	Nov. 19	2265	507	49	1197
Titus, John B., Tryonville, Pa. Car-coupling	414,607	Nov. 5	658	171	49	871
Titus, John W., Eckerty, Stock-trough, for vehicles	416,907	Dec. 3	235	61	49	1415
Todd, John N., and T. Griffin, Kilmichael, Miss. Cultivator	417,607	Nov. 17	2184	561	49	1814
Toumlinson, Stephen R., et al. (See Deniger, Joseph H., assignor.)						
Tompkins, Morris, Germantown, N. Y. Fruit assorting and cleaning device	417,736	Dec. 24	2411	636	49	1866
Tompkins, Myron, Attica, Ohio. Ranging-gear for vehicles	417,374	Dec. 17	1832	480	49	1745
Tonkin, John J., assignor to T. Kingsford, Oswego, N. Y. Valve-motion for steam-pumps	414,956	Nov. 12	1154	309	49	980
Tonna, Lewis N., New Brighton, N. Y. Screw-propeller	413,268	Oct. 22	2197	572	49	448
Topping, Charles E., and C. H. Scott, Marion, N. Y. Washing-machine	418,595	Dec. 31	3706	968	49	2129
Toquet, Benjamin H., Westport, Conn. Flexible ruler	412,904	Oct. 15	1653	431	49	335
Torrey Patent Gas Company. (See Averell, John D., assignor.)						
Torrey, Francis B., Bath, Me. Boiler-fue cleaner	414,827	Nov. 12	985	255	49	942
Totchill, William S., Chicago, Ill. Reclining-chair	413,377	Oct. 22	2277	615	49	880
Towley, Mirron G., assignor to A. Patrick, Englewood, Ill. Table-waiter	415,131	Nov. 12	1428	373	49	1029
Tower, Lewis C., Rochester, N. Y., assignor to Electric Cutlery Company, of New York. Razor-strop	412,938	Oct. 15	1701	444	49	344
Town, Franklin E., Beaufort, S. C. Device for compressing, binding, and securing cotton bales	413,850	Nov. 26	2576	673	49	1300
Towne, Charles D., Galesburg, Mich. Elevator for harvesting-machines	416,764	Dec. 10	914	246	49	1557
Towne, Henry R. (See Stockwell, Emory, assignor.)						
Towne, Henry R., assignor of one-half to E. Stockwell, Stamford, Conn. Apparatus for separating dust from air	416,545	Dec. 31	3627	947	49	3114
Towley, John T., Cincinnati, Ohio. Truck	414,344	Nov. 5	243	61	49	767
Towson, Morris S. (See Gillham and Towson.)						
Towson, Richard M., Stafford Court-House, Va. Hinge	414,461	Nov. 5	432	109	49	827
Triebert, Friedrich, Rathenow, Prussia, Germany. Hanger for floor-arch centers	417,957	Dec. 24	2714	714	49	1924
Trabold, Valentin C., Newark, N. J. Door-check	416,874	Dec. 10	1076	290	49	1590
Tracy, George S., assignor of one-half to T. A. Galt, Sterling, Ill. Corn-husking and fodder-chopping machine	418,323	Dec. 31	3291	860	49	3045
Tracy, Harriet R., New York, N. Y. Sewing-machine	413,312	Oct. 22	2119	551	49	432
Tracy, Patrick J., Racine, Wis. Governor for electric generators	418,567	Dec. 8	3145	789	49	233
Tracy, Porter, Washington, D. C. Blacking-brush	415,008	Nov. 12	1292	329	49	995
Tracy, William P., Grand Rapids, Mich. Anti-rattler for rail-couplings	416,973	Dec. 10	1297	331	49	1617
Traban, George W., Housa, La. Hand-water sprinkler	417,690	Dec. 17	2203	609	49	1836
Trammell, William H., Huntington, Ind. Nut-lock	415,289	Nov. 19	2193	574	49	1172
Trammel, William H., Huntington, Ind. Fender for plows	415,887	Nov. 26	2628	697	49	1272
Trammell, John B., New York, N. Y. Railway gate	416,043	Nov. 26	2679	732	49	1325
Trapp, Ludwig, Göttingen, Germany. Railway shoe-brake	413,913	Oct. 22	2121	551	49	432
Trask, Charles H., Lynn, Mass. Work-holder for milling-machines	414,174	Oct. 29	3545	925	49	739
Trastwein, Georg. (See Wesslau and Trastwein.)						
Traver, Newton H., Detroit, Mich. Carpet-exhibitor	417,608	Dec. 17	2185	381	49	1814
Travers, Herman R., assignor of one-half to W. R. Wilson, Baltimore, Md. Picker-rod for molders	415,179	Nov. 12	1539	396	49	1041
Treat, Harry W. (See Hibby, Frederick J., assignor.)						
Treat, James E., Boston, Mass. Pneumatic action for pipe-organs	416,974	Dec. 10	1297	331	49	1617
Treat, John E., Orion, Mich. Caster	412,308	Oct. 8	770	200	49	158

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.
			Spec.	Draw.	
Tredick, Edward. (See Nye, George E., assignor.)					
Tregoning, John. (See Thomson and Tregoning.)					
Tregurtha, Alfred T., Everett, assignor to H. A. Clark, Boston, Mass. Machine-treadle	418,661	Dec. 31	3799	990	49 2148
Trenouille, Pierre, Bordeaux, France. Tag and tag-fastener	418,813	Dec. 10	986	267	49 1372
Trench, Charles, Boston, Mass. Oil-stormer	418,827	Dec. 31	3444	900	49 2076
Trenkamp, Henry. (See Schneider and Trenkamp.)					
Trenton Watch Company. (See Potter, Albert H., assignor.)					
Tribble, Robert F., Newman, Ill. Churn	413,955	Oct. 29	3255	850	49 668
Triment Manufacturing Company. (See Vinton, John H., assignor.)					
Triplett, Granville S. P., et al. (See Marr, Thomas, assignor.)					
Tripold, Ambrose A., and B. Blumenschein, Brooklyn, N. Y. Can-making machine	416,432	Dec. 3	415	112	49 1453
Tripp, James, New York, N. Y. Shuttle-actuating mechanism for sewing-machines	413,111	Oct. 15	1950	509	49 393
Tripp Manufacturing Company. (See Tripp, Thomas, assignor.)					
Tripp, Thomas, Avon, Mass., assignor to Tripp Manufacturing Company, of Maine. Stuffing-box	415,483	Nov. 19	2013	522	49 1142
Trost, William F., assignor of one-third to S. H. Slaymaker and J. F. Barry, Lancaster, Pa. Padlock	418,359	Dec. 31	3344	873	49 2035
Trombly, Thomas R., Glen Falls, N. Y. Thill-coupling	416,196	Dec. 3	62	80	49 1392
Trotter, Alexander P., Westminster, county of Middlesex, England. Thermometer	416,875	Dec. 10	1077	291	49 1590
Trotter, Charles W., Rochester, N. Y. Thill-coupling	418,299	Dec. 31	3230	847	49 2035
Troxell, Abraham, Liberty, Ohio. Unloading-platform	416,519	Dec. 3	551	149	49 1479
Troy, Daniel S. (See Davis, John S., assignor.)					
Troy Laundry Machinery Company. (See Roberts, George C., assignor.)					
Trueh, Jacob, New York, N. Y. Thermotic regulator for heating apparatus	416,656	Dec. 3	758	207	49 1520
Trump, Edward N. (See Bradburn, Trump, and Pennock.)					
Tschopp, Charles O. (See Tschopp, Henry M. and C. O.)					
Tschopp, Henry M. and C. O. Pleasantville, assignors of one-third to J. P. Strickler, Pickerington, Ohio. Fence-machine	413,430	Oct. 22	2431	632	49 493
Tuck, Nelson L., Philadelphia, Pa. Automatic filling and weighing machine	417,609	Dec. 17	2188	583	49 1815
Tucker, Frank W., Wintrop, Mass. Sash-holder	413,466	Oct. 22	2494	646	49 504
Tucker Manufacturing Company. (See Welton, Frank E., assignor.)					
Tudor, Henry, Rosport, Luxemburg, Germany. Electrode for secondary batteries	413,112	Oct. 15	1952	509	49 393
Tulloch, James, Angel's Camp, Cal. Ore-concentrator	412,434	Oct. 8	950	250	49 193
Tulle, Gustav, Leuwarden, Netherlands. Molding paste	412,300	Oct. 8	771	191	49 158
Tuttle, Marshall, and C. W. Chatterlin, Council Bluffs, Iowa. Plaster	416,278	Dec. 3	190	190	49 1405
Turnan, William F., Wetherford, Tex. Trace attachment	413,928	Nov. 26	2703	706	49 1288
Turnbull, Andrew. (See Steedman, Partridge, and Turnbull.)					
Turnbull, George A., Chicago, Ill. Metallic roofing	417,757	Dec. 24	2413	637	49 1866
Turner, Benjamin C. (See Fair, Edmund, assignor.)					
Turner, Daniel M. (See Carter, William, assignor.)					
Turner, Donice B., et al. (See Cottle, Freeman N., assignor.)					
Turner, Ephraim M., Fort Worth, Tex. Tent and attachment	415,826	Nov. 26	2545	663	49 1254
Turner, Fred L. (See East and Turner.)	416,765	Dec. 10	915	246	49 1558
Turner, Fred L., assignor to Keystone Watch Case Company, Philadelphia, Pa. Watch-housing fastener	414,828	Nov. 12	986	255	49 942
Turner, George, Braidwood, Ill. Bridge-gate	417,293	Dec. 17	1697	457	49 1722
Turner, George W., assignor of one-half to C. N. Parker, St. Paul, Minn. Surgical splint	412,913	Oct. 1	621	161	49 124
Turner, Henry L., assignor to Western Publishing-House, Chicago, Ill. Color-chart	417,146	Dec. 24	3013	790	49 1820
Turner, Robert R., Columbus, Ohio. Apparatus for the manufacture of gas	416,520	Dec. 3	552	149	49 1479
Turner, Vaughn & Taylor. (See Vaughn, James A. and C. W., assignors.)					
Turner, William, Moscow, Idaho Terr. Pump	413,435	Oct. 8	952	250	49 194
Turner, William E. (See Leach, Charles, assignor.)					
Turney, John E., Chicago, Ill. Sash-holder	415,500	Nov. 19	2194	572	49 1178
Turney, John P., Arlington, Oreg. Obstetrical appliance	413,999	Oct. 15	1728	467	49 361
Turnpach, James W., Fort Worth, Tex. Cotton-press	413,597	Oct. 15	1513	394	49 306
Tuttle, Elias A. (See Littlefield, Charles A., assignor.)					
Tuttle, George A., et al. (See Littlefield, Charles A., assignor.)					
Twisden, John H. (See Gale, Herbert N., assignor.)					
Twitwell, Myron A., Moline, Iowa. Wad-puller	416,975	Dec. 10	1209	331	49 1618
Tryman, Aaron, Pullman, Ill. Gripping-device carrier and attachments thereto for cable-railway cars	414,200	Nov. 5	132	32	49 764
Trynian, Thomas, London, England. Lifting-trip	416,814	Dec. 10	987	267	49 1372
Tyler, George H., Mannville, Wis. Drill	417,010	Dec. 17	2091	583	49 1816
Tynan, Joseph E., Paterson, N. J. Spinning-spindle and support therefor	417,278	Oct. 1	147	38	49 31
Tynan, Joseph E., Paterson, N. J. Spindle-driving device for spinning-machines	415,827	Nov. 26	2546	663	49 1254
Tyson, Mackiel. (See Tyson, Samuel H., et al.)					
Tyson, James R., Reading, Pa. Nut-lock	413,209	Oct. 22	2198	573	49 440
Tyson, Samuel H. and E. West Boylston, Mass. Thill-coupling	413,378	Oct. 22	2576	616	49 480
Ubert, Harvey J. (See Bolus, Alfred R., assignor.)					
Uhl, Joseph. (See Stowe and Uhl.)					
Ulmer, Amos M. (See Hardwick, Ulmer, and Fowler.)					
Ulrich, Edward R., Jr. (See Crow, William R., assignor.)					
Ulrich, Frederick W., Rock Falls, Ill. Shaft-hanger	416,197	Dec. 3	69	20	49 1392
Ulrich, Moritz, assignor to Farbenfabriken, vormals Fr. Bayer & Co., Elberfeld, Germany. Making dioxynaphthalene monosulphate	415,257	Nov. 19	1646	408	49 1070
Ulrich, Moritz, assignor to Farbenfabriken, vormals Fr. Bayer & Co., Elberfeld, Germany. Azo-blue color	415,258	Nov. 19	1646	408	49 1070
Ulrich, Moritz, assignor to Farbenfabriken, vormals Fr. Bayer & Co., Elberfeld, Germany. Azo-dye	417,294	Dec. 17	1698	409	49 1723
Ulrich, Moritz, assignor to Farbenfabriken, vormals Fr. Bayer & Co., Elberfeld, Germany. Azo-dye	417,295	Dec. 17	1699	409	49 1723
Ulrich, Moritz, assignor to Farbenfabriken, vormals Fr. Bayer & Co., Elberfeld, Germany. Azo-dye	417,296	Dec. 17	1699	409	49 1723
Unbehend, Jacob J., assignor to J. L. Thomson Manufacturing Company, Syracuse, N. Y. Clasp-plate	416,695	Dec. 3	809	221	49 1530
Underwood, Herbert F. (See Best and Underwood.)					
Underwood, Sidney S., Easton, Pa. Handle-rack	417,119	Dec. 10	1432	390	49 1661

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.
			Spec.	Dr. & Vol.	
Underwriters Hatch Door Company. (See Harter, Gustav A., assignor.)					
Unexcelled Fireworks Company. (See Wadsworth, Claudius, assignor.)					
Union Fire Alarm Company. (See Foote, George L., assignor.)					
Union Paper Bag Machine Company. (See Claussen, Edward E., assignor.)					
Union Paper Bag Machine Company. (See Stilwell, Charles B., assignor.)					
Union Special Sewing Machine Company. (See Muther, Lorenz, assignor.)					
Union Store Service Company. (See Caille, Joseph M., assignor.)					
Union Switch and Signal Company. (See Hamby, James T., assignor.)					
Union Water Meter Company. (See Ball, Phineas, assignor.)					
Union Water Meter Company. (See Conroy, James C., assignor.)					
Union Waterproof Shoe Company. (See Joyce, Joseph L., assignor.)					
United Electric Improvement Company. (See Currie, Stanley C. C., assignor.)					
United Electric Improvement Company. (See Smith, Walter F., assignor.)					
United States Chemical Company. (See McNab, James, assignor.)					
United States Food Fertilizer and Manufacturing Company. (See Houseman and Sprowles, assignors.)					
United States Mine Supplies Company. (See Tirman, Franz, L. and H., assignors.)					
United States Pipe Bending and Coiling Company. (See Fowler, Herbert E., assignor.)					
United States Street Sweeper Company. (See Reynolds, Dayton D., assignor.)					
Universal Lock Company of New York. (See Smith, Eugene C., assignor.)					
Universal Plow Co. (See Belding, Thomas C., assignor.)					
Unna, Serine, Haseloge, Nehr. Apparatus for preserving fruit.	418,251	Dec. 31	3168	830	49 2021
Upham, David A., and T. J. Fay, Worcester, Mass., assignors to Worcester Gas Iron Com-	413,354	Oct. 22	3244	{ 607 608 }	49 474
pany, Portland, Me. Taylor's gas-iron					
Upton, Charles S. (See Gregory, George H., assignor.)					
Upton, Charles S. (See Henkle, Leonard, assignor.)					
Upton, Charles T. (See Pratt and Upton.)					
Upton, Colcord, Salem, Mass. Condenser.	418,428	Dec. 31	3446	000	49 2077
Urthain, Eugène, San Francisco, Cal. Ground-bone furnace.	414,606	Nov. 5	659	{ 171 172 }	49 871
Ure, William K., et al. (See Hastings, Emory B., assignor.)					
Utter, Samuel S., Brooklyn, N. Y. Stove.	416,279	Dec. 3	191	51	49 1405
Vaag, Anton B., Hillsborough, Dak. Ter. Pitchfork.	412,214	Oct. 1	633	162	49 125
Vacuum Brake Company. (See Gresham, James, assignor.)					
Vail, Joseph, Garden Grove, Iowa. Cattle-guard.	412,319	Oct. 8	771	200	49 158
Vaile, John H., Dayton, Ohio. Apparatus for actuating hydrostatic presses.	415,750	Nov. 26	2438	{ 636 637 }	49 1233
Vaile, John H., Dayton, Ohio. Actuating hydrostatic presses.	416,920	Nov. 26	2840	743	49 1317
Vajen, Willis C., Indianapolis, Ind. Rein-support.	414,549	Nov. 12	1026	365	49 949
Vale, Eli C., East Carmel, Ohio. Halm-fastener.	415,259	Nov. 19	1647	425	49 1070
Valentine, Theodore S., Sr., Cumberland, Md. Corn-planter.	414,345	Nov. 5	244	61	49 788
Valentine, William A., New York, N. Y. Ticket-issuing apparatus.	416,521	Dec. 3	555	{ 150 151 }	49 1480
Van Bibber, Andrew D., Zela, W. Va. Churn-dasher.	413,283	Oct. 22	2659	691	49 538
Van Brunt, William C., Horiola, Wis. Grain-drill.	412,408	Oct. 15	1513	395	49 309
Van Cise, William C., Jamestown, N. Y. Pillow-sham holder.	413,214	Oct. 22	2122	551	49 433
Van Cleave, Joseph H., (See Koenig and Van Cleave.)					
Van Decar, Emery, East Albany, assignor of one-half to A. Fryer, Bath, N. Y. Car-axle					
lubricator.	414,129	Oct. 29	3469	901	49 714
Van den Esch, Peter, Steinway, N. Y. Machine for finishing plush.	415,009	Nov. 12	1263	{ 329 330 }	49 995
Van Depoele, Charles J., Lynn, Mass. Alternate-current induction-motor.	413,966	Oct. 29	2566	851	49 661
Van Depoele, Charles J., Lynn, Mass. Spring-switch for overhead electric conductors.	414,009	Nov. 5	661	172	49 871
Van Depoele, Charles J., Lynn, Mass. System of switching for conduit electric railways.	417,121	Dec. 10	1434	391	49 1602
Van Depoele, Charles J., Lynn, Mass. System of switching currents to electric railway					
systems.	417,122	Dec. 10	1440	392	49 1603
Van Depoele, Charles J., Lynn, Mass. System of electrical distribution of currents.	417,654	Dec. 17	2250	{ 597 598 }	49 1826
Van Depoele, Charles J., Chicago, Ill. Drop-switch for electric conductors.	417,120	Dec. 10	1423	390	49 1602
Van Dorston, Alvin W., Washington, D. C. Draw-gear for railway-cars.	416,522	Dec. 3	557	{ 151 152 }	49 1480
Van Duzer, George, New York, N. Y. Suspender-belt.	417,450	Dec. 17	1928	514	49 1766
Van Fleet, Fred, Williamsport, Pa. Musical box.	417,797	Dec. 24	2473	652	49 1878
Van Geen, Garrett, Clymer, N. Y. Double-tree fastening for wagon-poles.	418,546	Dec. 31	3628	947	49 2115
Van Gestel Electric Street Car Company. (See Van Gestel, Jean T., assignor.)					
Van Gestel, Jean T., assignor to Van Gestel Electric Street Car Company, New York, N. Y.					
Electric lamp.	413,636	Oct. 22	2743	711	49 555
Van Horn, Bert, Omaha, and J. E. Lathé, Vernon, N. Y. Wagon-seat fastener.	414,357	Nov. 12	1166	369	49 960
Van Horne, Herman E., New York, N. Y. Rubber tooth-brush.	411,910	Oct. 1	196	59	49 40
Van Houten, Frank H., Matteswan, N. Y. Device for driving nails.	418,360	Dec. 31	3345	873	49 2055
Van Norman, Charles E., Waltham, Mass. Key-holder.	413,421	Oct. 22	2432	632	49 493
Van Patten, Frederick, Auburn, N. Y. Spring harrow-tooth.	412,664	Oct. 15	1594	415	49 324
Van Patten, Frederick, Auburn, N. Y. Spring harrow-tooth.	412,665	Oct. 15	1385	416	49 324
Van Tine, George W., Elizabeth, N. J. Metal-founding apparatus.	412,965	Oct. 15	1654	432	49 353
Van Valkenburg, Ellis M., Union Grove, Wis. Vehicle-spring.	418,092	Dec. 24	2917	766	49 1964
Van Valkenburg, Randall T., assignor to Muskegon Chemical Fire Engine Company, Muske-					
gon, Mich. Chemical engine.	413,837	Oct. 29	3030	{ 789 790 }	49 620
Van Wageningen, George. (See Graves, John, assignor.)					
Van Wageningen, George, and J. Graves, New York, N. Y. Machine for manufacturing					
wrought-metal flanges for pipe-couplings.	412,311	Oct. 8	772	201	49 158
Van Wageningen, George, and J. Graves, New York, N. Y. Making pipe-coupling flanges.	418,816	Dec. 10	288	267	49 1572
Van Wageningen, George, and J. Graves, New York, N. Y. Making wrought-metal flanges.	418,816	Dec. 10	289	267	49 1572
Van Wyck, James P., Hudson, N. Y. Dumping wagon.	414,653	Oct. 29	3420	{ 888 889 }	49 703
Vance, Andrew P., assignor of one-third to W. B. Sowards, Rush Hill, Mo. Harrow.	414,270	Nov. 15	133	32	49 764
Vanderweerd, Tonia, Yonkers, N. Y. Spindle-driving device for spinning-machines.	411,842	Oct. 1	105	52	49 23
Vanorman, Oliver, assignor of one-half to C. H. Eason, Los Angeles, Cal. Divided car-axle.	415,373	Nov. 19	1810	471	49 1109
Vanover, Joseph M., assignor of one-half to L. F. Perdue, Terre Haute, Ind. Sliding or					
rolling gate.	412,684	Oct. 8	1334	347	49 259
Vasley, William. (See Gross and Vasley.)					
Vaughan, Frank, Elizabeth City, N. C. Submarine diving apparatus.	413,000	Nov. 15	1789	467	49 901
Vaughan, Henry M., Newton, Iowa. Vapor-burning stove.	414,736	Nov. 12	857	221	49 916
Vaughn, Calvin W. (See Vaughn, James A. and C. W.)					
Vaughn, Charles A., Newark, N. J. Power-hammer.	412,809	Oct. 15	1514	{ 395 396 }	49 310

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. 24	Vol.	Page.
Vaughn, Ernestus H., et al. (See Walsh, John W., assignor.)						
Vaughn, James A., and C. W., (assignors to Turner, Vaughn & Taylor, Cayahoga Falls, Ohio.)	412,568	Oct. 8	1148	300 201	49	233
Vautin, Claude T. J., London, England. Apparatus for the extraction of gold by chlorination.	413,768	Oct. 20	2937	762 760	49	601
Vauth, Claude T. J., London, England. Apparatus for separating solutions of metallic salts from pulverized material mixed therewith	413,769	Oct. 20	2938	766	49	602
Venable, William T., Christiansburg, Ky. Washing-machine	414,928	Nov. 12	1142	398	49	972
Veneman, John, Dayton, Ohio, assignor to J. W. Sefton Manufacturing Company, Anderson, Ind. Paper vessel	416,417	Dec. 10	990	367	49	1572
Venon, Isaac H., and R. C. Smith, Yonkers, assignors to Otis Brothers & Company, New York, N. Y. Hydraulic-valve apparatus	414,610	Nov. 5	662	172 173	49	871
Venners, Thomas R. (See Heatley, John, assignor.)						
Venth, Carl. (See Loefer and Venth.)						
Vercell, Joseph, and B. Grazina, Boston, Mass. Machine for cutting, shaving, and grinding cheese	412,810	Oct. 15	1516	396	49	310
Verlaand, Claudius, Quincy, Ill. Lubricator for steam-engines	414,785	Nov. 12	919	428	49	929
Verry, Alpha O., Boston, Mass. Needle for sewing-machines	413,770	Oct. 20	2940	767	49	602
Vickers, James H., Monroe, Mo. Shaving-paper holder	416,380	Dec. 3	103	51	49	1440
Victory, Edmund, assignor of one-half to C. R. Remington, Watertown, N. Y. Pulp-screening machine	417,451	Dec. 17	1030	514 515	49	1766
Vidler, Rees C., and E. R. M. Pierce, Wichita, Kans. Stock-car	418,629	Dec. 31	3733	960 961	49	2139
Vietmeyer, Henry W., Columbus, Ohio. Two-wheeled vehicle	411,843	Oct. 1	107	82	49	24
Victor, Rudolph. (See Stonehouse and Victor.)						
Vincent, Frank, Brooklyn, N. Y. Chimney-cowl	418,252	Dec. 31	3169	830 831	49	2021
Vinton, David, Jr., and F. H., Williamsburg, Mich. Automatic signal for railways	414,462	Nov. 5	434	110	49	827
Vinton, Frank H. (See Vinton, David, Jr. and F. H.)						
Vinton, John H., Boston, Mass., assignor to Triniton Manufacturing Company, Portland, Me. Wrench	414,693	Nov. 5	748	193	49	888
Viser, William M. (See Glick, Bernath, assignor.)						
Vivian, John H., Chicago, Ill. Device for preventing offsetting in printing-machines	417,297	Dec. 17	1700	458	49	1733
Voegtline, John, and G. Bergstrom, Republic, Mich., assignors of one-third to I. M. Engle, Minneapolis, Minn. Dumping-car	415,484	Nov. 19	8015	523 524	49	1143
Voelker, Frederick W. (See Gouding, George P., assignor.)						
Vogel, Charles, Fort Lee, assignor to himself, and G. O'Rourke, Englewood, N. J. Valve for steam-engines	411,944	Oct. 1	248	64	49	50
Vogel Petroleum Heating Company. (See Vogel, William, assignor.)						
Vogel, Theodor, Snaillfeld, Germany. Apparatus for making yeast	417,611	Dec. 17	2192	563	49	1816
Vogel, William, Chicago, Ill. Method of and apparatus for utilizing explosive energy	417,123	Dec. 10	1444	303	49	1664
Vogel, William, assignor to Vogel Petroleum Heating Company, Chicago, Ill. Oil-burning apparatus	416,876	Dec. 10	1079	291 291	49	1590
Vogel, William, assignor to Vogel Petroleum Heating Company, Chicago, Ill. Car-heating device	416,877	Dec. 10	1082	292	49	1591
Vogel, William, assignor to Vogel Petroleum Heating Company, Chicago, Ill. Burner for tops of stores	416,878	Dec. 10	1086	292 293	49	1592
Voght, Karl, Newark, N. J. Hand-cultivator for mixing ground coffee	418,630	Dec. 31	3750	981	49	2139
Volk Cable Crossing Grip and Car Brake Company. (See Volk, Jacob, assignor.)	415,831	Nov. 26	3579	674	49	1981
Volk, George, Toledo, Ohio. Metal wheel	418,253	Dec. 31	3170	831	49	2021
Volk, Jacob, St. Louis, Mo., assignor to Volk Cable Crossing Grip and Car Brake Company, Chicago, Ill. Cable-grip	413,584	Oct. 22	2660	691	49	538
Volkman, John H. (See Adrance, Benjamin, assignor.)						
Voll, Charles H., San Francisco, Cal. Ore-concentrator	416,021	Nov. 26	2842	744	49	1317
Vollhardt, George H., Milwaukee, Wis. Vehicle-tongue	412,569	Oct. 8	1149	301	49	233
Vollrath, Carl A. W., assignor to P. J. Vollrath Manufacturing Company, Sheboygan, Wis. Enameling metal surfaces	415,485	Nov. 19	8016		49	1143
Vollrath Manufacturing Company, Jacob J. (See Vollrath, Carl A. W., assignor.)						
Volta, John A., Chicago, Ill. Back pressure trap for sewer-pipes	417,452	Dec. 17	1031	515	49	1766
Vom Hofe, Julius, Brooklyn, assignor to C. F. Imbrie, New York, N. Y. Flushing-reel	412,685	Oct. 8	1335	347	49	269
Vom Hofe, William, Iselin, N. J. Adjustable spout for bottles, tumblers, &c.	417,958	Dec. 24	2715	715	49	1924
Von Buonacorsi di Pistoja, Adolf G., Vienna, Austria-Hungary. Auto-mobile torpedo	413,113	Oct. 15	1953	510 511	49	393
Von Buonacorsi di Pistoja, Adolf G., Vienna, Austria-Hungary. Self-propelling torpedo	413,114	Oct. 15	1962	511	49	395
Von Buonacorsi di Pistoja, Adolf G., Vienna, Austria-Hungary. Automatic sinking valve for submarine torpedoes	413,115	Oct. 15	1965	512	49	396
Von Buonacorsi di Pistoja, Adolf G., Vienna, Austria-Hungary. Auto-mobile torpedo	413,585	Oct. 22	2662	692	49	538
Von Buonacorsi di Pistoja, Adolf G., Vienna, Austria-Hungary. Firing mechanism for torpedoes	417,206	Dec. 10	1566	425	49	1688
Von Culin, George M. (See Bates, Shaw, and Von Culin.)						
Von der Kammer, John, assignor of one-half to J. W. Packard, New York, N. Y. Auto-matic circuit-closer	417,758	Dec. 24	2414	637	49	1867
Von Hefner-Alteneck, Friedrich, Berlin, and C. Hoffmann, Charlottenburg, Prussia, Germany. Arc light	412,141	Oct. 1	530	137	49	104
Von Heyden Nachfolger, F. (See Baum, Heinrich, assignor.)						
Von Knorre, Georg. (See Feld and Von Knorre.)						
Von Oechelhaeuser, Wilhelm, Dessau, Germany. Gas-engine	417,759	Dec. 24	2415	637	49	1867
Von Schade, Adolph. (See Kelly, James, assignor.)						
Vose, Ambrose S., and D. J. Huckins, Boston, Mass. Rotary trimmer for boots or shoes	417,612	Dec. 17	2194	564	49	1816
Wadsworth, Joseph, Milford, Conn. Potato-crop	411,579	Oct. 1	148	38	49	31
Wreeland, John J. (See Wreeland, William A., and J. J.)						
Wreeland, William A., and J. J., Chicago, Ill. Balanced slide-valve	411,911	Oct. 1	197	50	49	40
Wreeland Company. (See Kittredge and Crane, assignors.)						
Wreeland Company. (See Leavitt, Kittredge, and White, assignors.)						
Wachorn, Henry M., et al. (See Choat, Otis W., assignor.)						
Wackerman, Edward H., Cleveland, Ohio. Vapor-burner	411,844	Oct. 1	108	28	49	24
Wad-El-Ward, James. (See Collins and Wad-El-Ward.)						
Wadleigh, Harvey M. (See Fisher, John C., assignor.)						
Wadsworth, Claudius, Brooklyn, assignor to Unexcelled Fireworks Company, New York, N. Y. Machine for charging fire-works	414,094	Oct. 29	2422	889	49	704
Waggoner, Edward P., Syracuse, N. Y. Piping system	417,798	Dec. 24	2475	632	49	1879
Waggoner, Edward P., assignor of one-half to Pierce, Butler & Pierce Manufacturing Company, Syracuse, N. Y. Boiler	416,129	Nov. 26	3038	799 790	49	1355

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dec.	Vol.	Page.
Wagner, Bernard P., Sidney, Ohio. Cash indicator and recorder	414,611	Nov. 5	664	173	49	872
Wagner, Clarence, Charleston, S. C. Combined shirt and vest	413,987	Oct. 29	3359	174	49	869
Wagner, Daniel B., Carey, Ohio. Washing-machine	413,817	Oct. 29	3065	782	49	614
Wagner, Ernst, Jr., assignor of one-half to W. Rathack, Manitowoc, Wis. Cheese-vat	416,706	Dec. 10	916	247	49	1558
Wagner, Franz X., New York, N. Y. Type-writing machine	414,695	Oct. 29	3423	890	49	704
Wagner, Lorenz, Frankfort-on-the-Main, Prussia, Germany. Construction of stair-cases	415,078	Nov. 12	1357	351	49	1014
Wahlstrom, John A., Wakefield, Nehr. Middlings-purifier	417,433	Dec. 17	1932	515	49	1766
Wainwright, Amos, Barnstable, county of York, England. Automobile rocking cot	418,093	Dec. 24	2918	706	49	1964
Wainwright, Harry S., Ashford, county of Kent, and B. Hyde, Sheffield, county of York, England. Sash-holder	412,312	Oct. 8	774	991	49	158
Wainwright, Samuel J., (See Blackmore, Lucile E., assignor.)	417,691	Dec. 17	2304	610	49	1857
Wainwright, William, San Francisco, Cal. Lawn-irrigator	414,346	Nov. 5	245	62	49	788
Walbridge, Herman D., et al. (See McCarty, William F. M., assignor.)						
Walcutt, W. Stuart. (See Hastings, Matthew E., assignor.)						
Waldaur, Adolphus, Stuttgart, Württemberg, Germany. Centrifugal machine	417,799	Dec. 94	2476	652	49	1879
Walden, Thomas J., Lebanon, Ind. Elevator-bucket	414,899	Nov. 12	987	633	49	942
Walden, John H., Jersey City, N. J. Match-friction surface	416,533	Dec. 3	359	159	49	1481
Waldorf, Samuel B., Hartsistown, Ill. Fence-post	416,524	Dec. 3	560	152	49	1481
Waldron, John, and C. H. Sprad, Muncy, Pa. Grinding-mill	417,700	Dec. 24	2418	638	49	1867
Waldron, Philetus A., St. Louis, Mich. Snap-hook	415,591	Nov. 19	2195	573	49	1178
Walker, Edward W. (See Gore and Ro Ton, assignors.)						
Walker, George W., Malden, Mass. Gate	418,570	Oct. 8	1150	301	49	234
Walker, James C., and G. D. Bradford, Alpena, Mich. Car-stake	414,613	Nov. 5	609	174	49	873
Walker, John H., Cleveland, Ohio. Pulley for cable railways	414,614	Nov. 5	670	175	49	873
Walker, John, Cleveland, Ohio. Tension-registering wrench	414,615	Nov. 5	670	175	49	873
Walker, John, Cleveland, Ohio. Drum for cable railways	414,958	Nov. 12	1187	310	49	980
Walker, John H., Boston, Mass. Paper-weight	417,375	Dec. 17	1924	490	49	1745
Walker, John S., Claremont, N. H. Spring-shoe	413,692	Oct. 29	2835	632	49	361
Walker, Joseph, Clark's Green, Pa. Automatic coupling for steam-pipes	416,767	Dec. 10	916	247	49	1558
Walker, Joseph H., assignor to Powers & Walker Casket Company, Grand Rapids, Mich. Coffin	416,384	Dec. 3	359	93	49	1438
Walker, Martin W., Sing Sing, N. Y. Pencil-sharpener	414,403	Nov. 5	436	110	49	828
Walker, Oakley S., Worcester, Mass. Drill-grinding machine	411,845	Oct. 1	169	289	49	341
Walker, Raedon, N. Y. Guard-finger	413,116	Oct. 15	1968	512	49	396
Walker, Thomas, Birmingham, England. Gas	417,124	Nov. 10	1449	393	49	1665
Walker, Thomas C., Denver, Colo. Hoisting machinery	414,347	Nov. 5	346	62	49	788
Walker, William A., Racine, Wis. Latch	413,492	Oct. 29	2835	632	49	361
Walker, William, assignor of one-half to W. H. Morris, Nevada, Mo. Horse-detacher	414,929	Nov. 12	1143	299	49	972
Walker, Joseph H., assignor to Johnson, Frost, assignor.)						
Walker, William J., Fishkill-on-the-Hudson, N. Y. Hat-crown press	418,392	Dec. 31	3380	884	49	2065
Wall, Mick, assignor of one-half to W. Geneste, New Orleans, La. Trap	417,298	Dec. 17	1708	458	49	1723
Wall, Thomas, assignor to himself and R. Sealy, Brooklyn, N. Y. Burner for lamps	418,478	Dec. 31	3516	919	49	3991
Wall, Thomas, assignor to himself and R. Sealy, Brooklyn, N. Y. Chimney-holder for lamps						
Wallace, Casper D., Bridgeport, Conn., assignor to Yost Writing Machine Company, New York, N. Y. Type-writing machine	418,479	Dec. 31	3516	920	49	3991
Wallace, Edward J. (See Allen and Wallace.)	418,094	Dec. 24	2919	706	49	1964
Wallace, John W., and W. Spencer, Brooklyn, N. Y. Can	418,254	Dec. 31	3171	831	49	2021
Wallace, Willard F., et al. (See Cooper, Charles B., assignor.)	413,988	Oct. 29	3260	852	49	609
Wallace, William, Ansonia, Conn. Drawing wire	418,695	Dec. 24	2921	767	49	1964
Wallace, William, New York, N. Y. Window-sash	416,198	Dec. 3	70	21	49	1382
Wallbridge, Herman D., et al. (See McCarty, William F. M., assignor.)						
Wallis, William J., assignor of one-half to H. Wulff, Chicago, Ill. Automatic seed-planter	414,696	Oct. 29	3426	891	49	705
Wallis, William T. (See Ellis, John, assignor.)						
Wallwork, Ronghsedge, and A. C. Wells, Manchester, county of Lancaster, England. Combined regulating valve and filter	417,761	Dec. 24	2420	638	49	1868
Walpole, F. D. (See Hicks, James R., assignor.)						
Walradt, Arnold M., and G. A. Cobben, Cedar Rapids, Iowa. Carpet-stretcher	414,737	Nov. 12	859	222	49	917
Walsh, Edward, Jr. (See Hartung and Walsh, assignors.)						
Walsh, John B. (See Holbrook, Albert J., assignor.)						
Walsh, John W., assignor of part to E. H. Vaughn and E. F. Murray, Troy, N. Y. Rail way-joint	414,348	Nov. 5	247	60	49	788
Walsh, John W., assignor of one-half to E. H. Vaughn, Troy, N. Y. Railway-rail joint	415,079	Nov. 12	1358	354	49	1015
Walsh, Joseph A., Philadelphia, Pa. Tooth-cleaning implement	413,601	Oct. 15	1790	468	49	360
Walsh, Ralph. (See Stanton, Henry T., assignor.)	415,999	Nov. 26	2705	706	49	1392
Walsh, Richard. (See Walter, Edward F., assignor.)	417,125	Dec. 10	1450	393	49	1665
Walsh, Richard, Detroit, Mich. Flushing apparatus	417,846	Dec. 24	2546	610	49	1892
Walsh, Thomas H., Montreal, Quebec, Canada. Car-coupling	413,797	Oct. 29	2977	776	49	669
Walsh, Charles, Brooklyn, N. Y. Hair-pin	412,652	Oct. 1	392	101	49	79
Walter, David C., assignor of two-thirds to J. C. Otis and S. P. Bowles, Toledo, Ohio. Low-water alarm	412,215	Oct. 1	634	163	49	125
Walter, Edward P. and H. C., Bridgeport, Conn., assignors to Manning, Maxwell & Moore, New York, N. Y. Machine for cutting spiral pinions	415,592	Nov. 19	2195	573	49	1178
Walter, Henry C. (See Walter, Edward P., assignor.)	418,480	Dec. 31	3517	920	49	3991
Walter, Henry C., Bridgeport, Conn. Machine for threading pipe-nipples	415,231	Nov. 19	1699	414	49	1063
Walters, Charles F., assignor to Richmond City Mill Works, Richmond, Ind. Flour-packer	416,796	Dec. 10	1210	331	49	1618
Walters, Charles W., Tifton, Ga. Fire-kindler						
Walters, Frank A., Atlanta, Ga. Grinding wheel	416,130	Nov. 26	2705	706	49	1392
Walters, Jasper M., assignor of two-thirds to W. W. Shuler and B. W. Doty, Findlay, Ohio. Air and gas burner	416,130	Nov. 26	2705	706	49	1392
Walters, William, Findlay, Ohio. Ironing-board	412,142	Oct. 1	921	197	49	105
Waltman, Henry M., et al. (See Dill, Thomas C., assignor.)	412,426	Oct. 8	952	251	49	164
Walton, Charles S., et al. (See Dill, Thomas C., assignor.)						
Walton, Sam H., Bolton, Eng. Plow	417,376	Dec. 17	1825	490	49	1745

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Walton, William R., assignor to Ansonia Brass and Copper Company, Ansonia, Conn. Kettle	414,350	Nov. 12	1027	965	49	949
Walworth, Caleb C., and H. Seyter, Boston, Mass. Gearing for operating apparatus for mixing aeriform fluids	413,744	Oct. 29	3901	755	49	595
Wanda, John C., St. Louis, Mo. Tightening and fastening device for car-doors	412,939	Oct. 15	1702	444	49	344
Wanda, John C., St. Louis, Mo. Seal-lock	418,596	Dec. 31	3707	965	49	2130
Wanless, Thomas G., Toronto, Ontario, Canada. Regulating device for the distributing-pipes of hot-air furnaces	414,349	Nov. 5	249	63	49	789
Wanner, Martin, Robinson, assignor of three-fourths to A. H. Weber, Denver, Colo. Liquid composition for use in systems of heating	417,213	Dec. 10	1575		49	1090
Wanzer, Frank L. (See Fricker, Henry, assignor.)						
Ward, Charles E., Rewey, Wis. Back-band attachment for harness	413,117	Oct. 15	1969	513	49	397
Ward, Charles F., St. Paul, Minn. Fastening for berths of sleeping-cars	416,199	Dec. 3	71	21	49	1332
Ward, Charles T., New Haven, Conn. A wing-frame	414,616	Nov. 5	671	175	49	873
Ward, Fleetwood. (See Smith, Amrose O., assignor.)						
Ward, John R., Kensington, county of Middlesex, England. Check-receiving apparatus	413,002	Oct. 15	1791	468	49	302
Ward, John W. (See Noble, Eldridge H., assignor.)						
Ward, Joseph G., Newark, N. J. Electroplating dental plates	418,662	Dec. 31	3500		49	2148
Ward, George H., New York, N. Y. Assignor to W. H. Johnstone, Philadelphia, Pa. Underground conduit	413,215	Oct. 22	2123	552	49	433
Warder, Bushnell & Glessner company. (See Baner, Charles A., assignor.)						
Warder, Bushnell & Glessner Company. (See Kane, Maurice, assignor.)						
Wardwell Sewing Machine Company. (See Cuning and Peirce, assignors.)						
Warland, Charles A., administrator. (See Lindsley, Isaac.)						
Warne, Amariah S., and A. L. Skinner, assignors of one-fourth to G. C. Wilson, Springfield, Mass. Take-up mechanism for looms	413,155	Oct. 15	3028	523	49	408
Warner, Daniel, assignor to G. W. Heartley, Toledo, Ohio. Combined power and hand punch	415,295	Nov. 19	1693	449	49	1080
Warner, Edward T., Wilmington, Del. Limekiln	414,350	Nov. 5	249	63	49	789
Warner, George W., Freeport, Ill. Spring hinge	415,302	Nov. 19	1610	415	49	1003
Warner, Jonathan, Sag Harbor, N. Y. Tripod	415,112	Oct. 15	1970	513	49	397
Warner Manufacturing Company. (See Hance, William A., assignor.)						
Warner, Peter B., Green Bay, Wis. Hoop-knotting machine	412,437	Oct. 8	953	351	49	1394
Warner, Ralph, Watertown, Mass. Full or like receptacle	415,456	Dec. 17	1703	456	49	194
Warwick, James F., Eugene, Oreg. Animal trap	415,456	Nov. 19	3917	524	49	1143
Warren, Ben F., Honor, Mich. Grain-meter	416,525	Dec. 3	560	152	49	1481
Warren, Christopher C., Chnnkey's Station, Miss. Car-coupling	412,811	Oct. 15	1518	397	49	311
Warren & Co., S. D. (See Atwood, Edward N., assignor.)						
Warren & Co., S. D. (See Cloudman, Francis A., assignor.)						
Warren, Edward K., and J. H. Ames, Three Oaks, Mich. Garment-stay	418,597	Dec. 31	3709	969	49	2130
Warren, George W., Evansville, Ind. Protector for piano-fortes	416,879	Dec. 10	1090	294	49	1592
Warren, John E. (See Vayns, Leon, and J. E. Warren, assignors.)						
Warren, John L. and J. E. De-troit, Mich. Capsule-trimming machine	413,969	Oct. 29	3261	852	49	609
Warren, Marion, Rochester, N. Y. Clothes-pin	417,847	Dec. 24	2349	671	49	1892
Warren, Nathaniel W. (See Head, Dallas F., assignor.)						
Warren, Thomas, Centerville, Ill. Combined box	416,526	Dec. 3	563	153	49	1482
Warner, James, assignor of one-half to A. M. Fraser, Fall River, Mass. Bobbin spindle or skewer	414,030	Nov. 12	1144	299	49	973
Warwick Cycle Manufacturing Company. (See Warwick, George T., assignor.)						
Warwick Cycle Manufacturing Company. (See Whitman, Louis F., assignor.)						
Warwick, George T., assignor to Warwick Cycle Manufacturing Company, Springfield, Mass. Bicycle	412,216	Oct. 1	637	163	49	126
Warwick, George T., assignor to Warwick Cycle Manufacturing Company, Springfield, Mass. Step for bicycles	416,696	Dec. 3	810	221	49	1530
Warwick, George T., assignor to Warwick Cycle Manufacturing Company, Springfield, Mass. Saddle for velocipedes	416,697	Dec. 3	811	222	49	1531
Washburn & Moen Manufacturing Company. (See Morse, Joseph E., assignor.)						
Washburn, Nathan, Boston, Mass. Apparatus for burning crude petroleum	418,326	Dec. 31	3293	861	49	2045
Washington, Lafayette, assignor of one-half to F. Heiskell, Knoxville, Tenn. Tire-leaver	416,300	Dec. 3	72	21	49	1383
Washington, Samuel, Manchester, England. Mold for making glass articles	415,802	Nov. 26	2511	653	49	1347
Waterbury Watch Company. (See Hart, George E., assignor.)						
Waterman, Lewis E., Moline, Ill. Cotton-seed planter	416,345	Dec. 3	353	93	49	1439
Waters, Richard H., Waterford, Tex. Clasp	416,327	Oct. 3	564	153	49	1482
Watkins, Charles, Buffalo, N. Y. Bicycle	417,655	Dec. 17	2454	598	49	1227
Watkins, Richard, and J. Dickson, New York, N. Y. Water-tube boiler	412,438	Oct. 8	954	251	49	194
Watkins, Thomas, and J. H. Brown, Coal Bluff, Pa. Coal-tipple	417,891	Dec. 24	2610	687	49	1904
Watkins, William D., assignor of one-half to J. H. Lucas, Osceola, Mo. Hay rake and stacker	417,300	Dec. 17	1704	458	49	1724
Watriss, George C., and L. Heynemann, San Francisco, Cal. Operating mechanism for turn-tables on cable street-railways	418,096	Dec. 24	2922	767	49	1953
Watrous, Thomas A., Elmira, N. Y. Tire-leaver	413,579	Oct. 22	2379	616	49	450
Watson, Andrew J., Martinsville, assignor of one-half to I. Fechheimer, Terre Haute, Ind. Fifth-wheel	418,097	Dec. 24	2923	767	49	1955
Watson, Edward M., Jersey City, N. J. Clothes-pin	418,429	Dec. 31	3448	991	49	2077
Watson, James, Marietta, Ga. Dress-shirt fastener	413,355	Oct. 22	2345	698	49	474
Watson, James H. (See Nelson, Clark B., assignor.)						
Watson, John C. (See Deeds, John B., assignor.)						
Watson, John E., Louisville, Ky. Galvanic battery	415,593	Nov. 19	3197	573	49	1179
Watson, Lewis H. (See Cohn and Watson.)						
Watson, Samuel. (See Cardwell and Watson.)						
Wattles, Joseph W., Canton, Mass. Compound for addition to size for yarns and fabrics	414,351	Nov. 5	251		49	789
Wattles, Joseph W., Canton, Mass. Spindle and bearing therefor	415,336	Nov. 19	1773	402	49	1096
Watts, Thomas H. (See Roberts, Lewis A., assignor.)						
Watts, William W., Birmingham, England. Shoe-holding device	417,454	Dec. 17	1934	516	49	1707
Way, Frank S., assignor to himself and G. B. Leonard, Mount Vernon, Ill. Car-bulver	413,493	Oct. 22	2344	633	49	494
Way, George W., Portland, Me. Dress-shirt elevator	416,022	Nov. 26	2544	744	49	1319
Way, Lorenzo S. (See Bailey, Charles H., assignor.)						
Wayland, James, Newark, N. J. Railway time-signal	412,053	Oct. 1	394	102	49	79
Wayland, James, Newark, N. J. Lint-machine	417,613	Dec. 17	2194	554	49	1816
Wayland, James, and J. S. Baldwin, Newark, N. J.; said Baldwin assignor to said Wayland. Pneumatic system for operating railway appliances	416,098	Dec. 3	814	222	49	1531

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume		Official Gazette.
			Spec.	Draw.	Page.
Weatherhead, Edward H. (See Collings and Weatherhead.)					
Weatherly, Abner W., Drake, assignor of one-third to S. Straus, Bennettsville, S. C. Combined cotton chopper and cultivator.	414,617	Nov. 5	672	126	49 574
Weaver, Henry M., Mansfield, Ohio. Cash and package carrying apparatus.	412,143	Oct. 1	522	137	49 101
Weaver, Henry M., Mansfield, Ohio. Cash and package carrier.	412,144	Oct. 1	524	137	49 105
Weaver, John J., Philadelphia, Pa. Construction of buildings.	412,508	Dec. 31	371.00	969	49 2130
Weaver, Oscar, March Chunk, Pa. Game-board.	417,528	Dec. 17	2091	552	49 1793
Webb, Charles H. (See Smith, Lester C., assignor.)					
Webb, Charles H., New York, N. Y. Adding-machine.	414,929	Nov. 12	1188	310	49 880
Webb, George B., Newark, N. J. Cannon.	417,800	Dec. 34	2478	633	49 1870
Webb, Isaac H., Oil City, Pa. Combined valve and spraying apparatus for cleaning oil-wells.	414,464	Nov. 5	437	111	49 828
Webber, Charles L., Neenah, Wis. Hat and coat book.	413,407	Oct. 22	2194	647	49 504
Webber, Edward B., Collierville, Tenn. Muzzle.	413,878	Oct. 29	3097	897	49 633
Webber, Henry A., Rockton, assignor to Seale, Bishop & Co., Rockford, Ill. Closure for churns.	411,840	Oct. 1	112	29	49 24
Webber, Orlow, Boston, and F. A. Pratt, Braintree, Mass. Car-gate.	416,708	Dec. 10	218	247	49 1558
Weber, Adolph, assignor of one-half to W. L. E. Mabon, Detroit, Mich. Valve.	413,216	Oct. 22	2124	552	49 433
Weber, Albert. (See Weber, John G. and A.)					
Weber, Albert H. (See Wanner, Martin, assignor.)					
Weber, Charles S., San José, Cal. Stringing pianos.	416,301	Dec. 3	73	22	49 1383
Weber & Co., F. (See Wolff, Carl H., assignor.)					
Weber, Edwin R., New York, N. Y. Extension-mattress.	416,623	Nov. 26	2945	745	49 1318
Weber, Frederick W., Bousburg, Pa. Bag-bolster.	415,803	Nov. 26	2513	636	49 1248
Weber, John G. and A., Defiance, Ohio. Post-driving machine.	412,006	Oct. 1	336	86	49 66
Weber, Nikolaus, Lambertville, N. J. Fireman's or stoker's shield.	413,624	Oct. 22	2435	633	49 494
Weber, Robert, Sealy, Tex. Double-mold-board plow.	417,892	Dec. 24	2614	558	49 1965
Weber, Valentin, Princerville, and J. R. Harrison, Peoria, assignors of one-third to W. Harrison, Peoria County, Ill. Gravelator.	417,614	Dec. 17	2197	655	49 1817
Weber, Walter R., Wayne, Neb. Door.	411,945	Oct. 1	243	64	49 51
Weber & Westphal. (See Westphal, Otto, assignor.)					
Webster, Ambrose, Waltham, Mass. Tail-stock spindle for lathes.	412,439	Oct. 8	955	251	49 104
Webster, Ambrose, Waltham, Mass. Machine for grinding lathe-beds.	417,615	Dec. 17	2198	585	49 1817
Webster, George. (See Garrett and Webster.)					
Webster, Ludru R., Holly, Mich. Hame-tug.	413,694	Oct. 29	2835	739	49 581
Webster, Pilsbury A. (See Marshall, Justice W., assignor.)					
Webster, William, Severance, Minn. Rotary engine.	415,337	Nov. 19	1780	402	49 1096
Wechsberg, John P., Milwaukee, Wis. King-bolt connection for vehicles.	413,900	Oct. 29	3263	852	49 669
Weddle & Co. (See Soule, Buren M., assignor.)					
Weed, Alfred, Tarrytown, N. Y. Forming articles of metal.	418,631	Dec. 31	3757	981	49 2138
Weeden, Henry C., Boston, Mass. Automatic flushing device.	415,260	Nov. 19	1648	425	49 1071
Weeden, Henry C., Boston, Mass., assignor to Weeden Sanitary Manufacturing Company, of Rhode Island. Flushing device.	416,131	Nov. 26	3041	790	49 1356
Weeden, Henry C., Boston, Mass., assignor to Weeden Sanitary Manufacturing Company, of Rhode Island. Automatic fore-and-after flushing-tank device.	416,132	Nov. 26	3042	791	49 1356
Weeden, Henry C., Boston, Mass., assignor to Weeden Sanitary Manufacturing Company, of Rhode Island. Automatic flushing device for urinals.	416,133	Nov. 26	3043	791	49 1356
Weeden, Henry C., Boston, Mass., assignor to Weeden Sanitary Manufacturing Company, of Rhode Island. Automatically flushing urinals, &c.	416,134	Nov. 26	3044	791	49 1356
Weeden, Henry C., Boston, Mass., assignor to Weeden Sanitary Manufacturing Company, of Rhode Island. Automatic flushing.	416,135	Nov. 26	3045	791	49 1357
Weeden, Henry C., Boston, Mass., assignor to Weeden Sanitary Manufacturing Company, of Rhode Island. Automatic flushing device.	416,136	Nov. 26	3047	791	49 1357
Weeden, Henry C., Boston, Mass., assignor to Weeden Sanitary Manufacturing Company, of Rhode Island. Automatic flushing device.	416,137	Nov. 26	3047	792	49 1357
Weeden, Henry C., Boston, Mass., assignor to Weeden Sanitary Manufacturing Company, of Rhode Island. Automatically flushing by electricity.	416,138	Nov. 26	3048	792	49 1357
Weeden, Henry C., Boston, Mass., assignor to Weeden Sanitary Manufacturing Company, of Rhode Island. Water-closet bowl.	416,139	Nov. 26	3049	792	49 1358
Weeden, Henry C., Boston, Mass., assignor to Weeden Sanitary Manufacturing Company, of Rhode Island. Automatic flushing device.	416,140	Nov. 26	3050	793	49 1358
Weeden, Henry C., Boston, Mass., assignor to Weeden Sanitary Manufacturing Company, of Rhode Island. Automatic flushing device.	416,141	Nov. 26	3051	793	49 1358
Weeden, Henry C., Boston, Mass., assignor to Weeden Sanitary Manufacturing Company, of Rhode Island. Automatically flushing the bowls of urinals, &c.	416,142	Nov. 26	3052	793	49 1358
Weeden Sanitary Manufacturing Company. (See Broene, Alexander P., assignor.)					
Weeden Sanitary Manufacturing Company. (See Weeden, Henry C., assignor.)					
Weedsport Skirt and Dress Company. (See Haviland, Joseph H., assignor.)					
Weeks, Clayton. (See Robinson and Weeks.)					
Weeks, James, Springfield Centre, N. Y. Spring-hanging device.	414,697	Oct. 29	3428	891	49 705
Weeks, John, London, England. Umbrella.	416,657	Dec. 3	762	208	49 1521
Weeks, John, Peckham, county of Surrey, England. Umbrella-frame.	416,658	Dec. 3	764	209	49 1521
Weeks, Rufus M., Sumner, N. H. Traveler's shaving-case.	414,465	Nov. 5	438	111	49 828
Wehle, John. (See Latz, Charles J., assignor.)					
Weil, Leopold. (See Pearl, Henry, assignor.)					
Weilberg, Arthur, assignor to L. Cassella & Co., Frankfort-on-the-Main, Germany. Azo coloring-matter.	412,440	Oct. 8	856		49 105
Weinert, Charles. (See Stitzel and Weinert.)					
Weingarten Brothers. (See Gilbert, Thomas S., assignor.)					
Weinmann, William N., et al. (See Mabnick, Charles N., assignor.)					
Weirich, George M., assignor to H. D. Just, Philadelphia, Pa. Dental matrix.	412,812	Oct. 15	1519	387	49 311
Weirich, George M., assignor to H. D. Just, Philadelphia, Pa. Dental impression-cup.	415,364	Nov. 19	2201	574	49 1179
Weirich, Jacob R., assignor of one-half to H. J. Hunnicke, Reading, Pa. Pattern-lifter.	415,945	Oct. 22	2168	524	49 442
Weis, John B. and E. Bernat, Toledo, Ohio. Skylight.	412,313	Oct. 8	776	202	49 159
Weiskopf, Isaac L., Fürth, Bavaria, Germany. Clasp.	412,813	Oct. 15	1519	397	49 311
Weiskopf, Samuel, et al. (See Phillips, Edwin G., assignor.)					
Weiss, Franz J., Basle, Switzerland, assignor of one-half to Sangerhäuser Aktien-Maschinen-Fabrik und Eisengieserei, vormals Hornung & Rabe, Sangerhausen, Germany. Condenser.	414,618	Nov. 5	674	176	49 874
Weiss, George W., Brooklyn, N. Y. Plaiting attachment for sewing-machine.	417,662	Dec. 17	2306	610	49 1847
Weiss, George W., Brooklyn, assignor to himself and J. Stewart, New York, N. Y. Machine for ruffling and gathering fabrics.	417,455	Dec. 17	1925	516	49 1767
Weiss, John, assignor of two-thirds to J. H. and V. Boehm, Cincinnati, Ohio. Shuttle-right.	412,571	Oct. 8	1151	302	49 234

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Office Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Weiss, Julius, New York, N. Y. Screw-driver	414,619	Nov. 5	078	177	49	875
Weissager, William, Jersey City, N. J. Combined yardstick and square	416,024	Nov. 26	2846	745	49	1318
Weissenborn, Oscar A., Jersey City, N. J. Toy elevator	411,847	Oct. 1	113	29	49	45
Weissenburger, Hermann, Cannstadt, Württemberg, Germany. Apparatus for the sale of liquids	417,348	Dec. 17	1785	480	49	1738
Weitzel, Henry, Minneapolis, Minn. Fire-escape	417,349	Dec. 17	1786	480	49	1738
Welborn, Charles C., et al. (See Maloney, Joseph A., assignor.)						
Welch, E. B. (See Angell, Edwin E., assignor.)						
Welch, E. B. (See Gilbert, William H., assignor.)						
Welch, E. B. (See Robinson, Thomas C., assignor.)						
Welch, Henry J., Carthage, N. Y. Combined cover and binder for papers	414,352	Nov. 5	253	63	49	789
Welch, Henry J., Carthage, N. Y. Holdback for vehicles	416,218	Dec. 10	361	898	49	1372
Welch, James E., Peetersburg, Ill., assignor of one-half to A. B. Bowman, St. Louis, Mo. Bolting-reef	415,684	Nov. 19	3244	611	49	1207
Welch, Orrin T., Popoka, Kans. Fire-place	415,270	Oct. 22	2199	573	49	440
Weldon, Charles D., Mica, Washington. Knapsack	417,361	Dec. 17	1707	459	49	1734
Weldon, John D. (See Strang, Lew K., assignor.)						
Weldon, Leonard, Coboes, N. Y. Yarn-dyeing machine	415,888	Nov. 26	2629	687	49	1272
Weldon, Leonard, Coboes, N. Y. Apparatus for dyeing wool	415,930	Nov. 26	2706	707	49	1299
Weldon, Leonard, Amsterdam, N. Y. Machine for dyeing cotton, &c.	415,899	Nov. 26	2630	686	49	1272
Weldon, Leonard, Amsterdam, N. Y. Wool-dyeing machine	415,890	Nov. 26	2631	688	49	1273
Weller, Russell, Buffalo, N. Y. Planer-chuck	416,244	Dec. 3	133	37	49	1394
Wellington, Charles A., Lexington, Mass. Fire-place	413,003	Oct. 15	1792	468	49	362
Wellington, Darins, Boston, Mass. Supply-tank for water-closets or other receptacles	413,860	Oct. 22	2626	692	49	539
Wellman, Timothy B., New York, N. Y. Carbureting compound	411,913	Oct. 1	198	50	49	41
Wells, Arthur C. (See Wallwork and Wells.)						
Wells, Arthur J., Syracuse, N. Y. Suspensory-bandage	412,441	Oct. 8	957	252	49	195
Wells, Charles S., Boston, Mass. Eyeglasses	416,326	Dec. 3	365	153	49	1482
Wells, Frank A., Nutley, N. J. Water-closet	412,414	Oct. 15	1590	307	49	311
Wells, Harlan P., and J. Spofford, Jr., Amesbury, Mass. Vehicle	413,567	Oct. 22	2609	693	49	539
Wells, J. Henry, Fall River, Mass. Bobbin	412,686	Oct. 8	1336	348	49	209
Wells, John D., et al. (See Mahlick, Charles L., assignor.)						
Wells, Joseph L., Avalon, N. J., and D. A. Cobb, Philadelphia, Pa. Device for retaining and applying liquids	416,629	Dec. 3	765	209	49	1582
Wells, Thomas F., Winchester, Mass., assignor to Mechanical Manufacturing Company, &c.	418,008	Dec. 24	2925	767	49	1965
Wells, Walter S., New York, N. Y. Eyeglasses	412,443	Oct. 8	958	252	49	195
Wells, William E., New York, N. Y. Dental mallet	414,333	Nov. 5	254	64	49	790
Welsbach Incandescent Gas Light Company. (See Bell, Harold J., assignor.)						
Welsbach Incandescent Gas Light Company. (See Humphreys, Alexander C., assignor.)						
Welsbach Incandescent Gas Light Company. (See Stewart, John L., assignor.)						
Welter, Joseph, Buffalo, N. Y. Double swinging door	418,255	Dec. 31	3171	831	49	2021
Welter, Louis, et al. (See Beck, Otto, assignor.)						
Welton, Frank R., Waterbury, Conn., assignor to Tucker Manufacturing Company. Clothes-drier	417,959	Dec. 24	2715	715	49	1924
Wendts, William C., Lancaster, assignor to W. H. Forbes, Boston, Mass. Flexible printing form and means for securing the same in place	415,192	Nov. 12	1429	374	49	1029
Wenger, Jacob E., Burton City, Ohio. Machine for dipping animals	412,815	Oct. 15	1522	398	49	311
Wengmann, Ernest. (See Haugk and Wengmann.)						
Wennemede, Franz, Saarlingen, near Klein-Kreutz, Prussia, Germany. Horse-gin	411,946	Oct. 1	1250	64	49	51
Wentworth, Albert A., Metcalf, Cal. Necktie-fastener	416,386	Dec. 3	354	30	49	1439
Werner, George C., Reister, Nehr. Crash-burning stove	414,901	Nov. 12	1145	299	49	923
Wertz, David L., Chattanooga, Tenn. Bevel	416,266	Oct. 31	3173	852	49	2022
Wesol, Ferdinand, et al. (See Clarke, Joseph I. C., assignor.)						
Wesseling, George H., St. Louis, Mo. Device for lighting lamps, &c.	415,599	Dec. 31	3711	969	49	2130
Wesslau, Bror H., Charlottenburg, Prussia, Germany. Coupling for underground cables	416,143	Nov. 26	3055	794	49	1359
Wesslau, Bror H., Charlottenburg, Prussia, Germany. Coupling for underground cables	416,144	Nov. 26	3056	794	49	1359
Wesslau, Bror H., Charlottenburg, Prussia, assignor to Siemens & Halske, Berlin, Germany. Joint for coupling underground cables	415,732	Nov. 26	2445	628	49	1325
Wesslau, Bror H., and G. Trautwein, Charlottenburg, Prussia, assignors to Siemens & Halske, Berlin, Germany. Joint for coupling underground cables	415,751	Nov. 26	2448	638	49	1324
West, Charles F., Concord, N. H., assignor to Westinghouse Air Brake Company, Allegheny, Pa. Valve	411,973	Oct. 1	241	72	49	57
West, Frank P., East Helena, Mont. Spike-extractor	416,529	Dec. 3	365	154	49	1482
West, Henry F., Gloucester City, N. J. Top-hat-lubricator	413,771	Oct. 22	2912	767	49	602
West, James, assignor of one-half to S. Cupples, St. Louis, Mo. Machine for stringing paper bags	416,819	Dec. 10	992	268	49	1573
Westcott, Mark S., et al. (See Bacon, William S., assignor.)						
Western Electric Company. (See East, John J., assignor.)						
Western Electric Company. (See Goodridge, William M., assignor.)						
Western Electric Company. (See Haskins and Scribner, assignors.)						
Western Electric Company. (See Scribner, Charles E., assignor.)						
Western Oil Refining Company. (See Kendall, Edward D., assignor.)						
Western Publishing House. (See Henderson, Isaac W., assignor.)						
Western Publishing House. (See Turner, Henry L., assignor.)						
Westerfelt, Edmund C., South Bend, Ind. Sully-plow	413,157	Oct. 15	2035	529	49	410
Westerfelt, George C. and W. A., Oberlin, Ohio. Signal-lantern	412,145	Oct. 1	325	138	49	106
Westerfelt, William A. (See Westerfelt, George C. and W. A.)						
Westinghouse Air Brake Company. (See Bayley, Richard W., assignor.)						
Westinghouse Air Brake Company. (See Higham, Charles C., assignor.)						
Westinghouse Air Brake Company. (See West, Charles F., assignor.)						
Westinghouse Electric Company. (See Hopkinson, John, assignor.)						
Westinghouse Electric Company. (See Packard, James W., assignor.)						
Westinghouse Electric Company. (See Schaefer, Leonard, assignor.)						
Westinghouse Electric Company. (See Schmid, Albert, assignor.)						
Westinghouse Electric Company. (See Schmid and Tesla, assignors.)						
Westinghouse Electric Company. (See Schlenker, Oliver E., assignor.)						
Westinghouse Electric Company. (See Winsor, Paul, assignor.)						
Westinghouse Electric Company. (See Winsor and Wurts, assignors.)						
Westinghouse Electric Company. (See Wurts, Alexander, assignor.)						
Westinghouse Electric Company. (See Young, Charles I., assignor.)						
Westinghouse, George, Jr. (See Hopkinson, John and E., assignors.)						
Westinghouse, George, Jr., Pittsburg, Pa. Brake apparatus for six-wheeled trucks	415,585	Nov. 19	2301	574	49	1179

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Westlake, Charles E., et al. (See Boyle, Homer L., assignor.)						
Westlake, James E., Albuquerque, N. Mex. Ter. Ore-pulverizer	415,261	Nov. 19	1649	496	49	1071
Weston, Charles. (See Loyd, Doctor M., assignor.)						
Weston, Edward B., Dayton, Ohio. Paper-roll holder and cutter	415,293	Nov. 19	1611	415	49	1064
Weston, Frank, New York, N. Y. Wig-block	415,373	Nov. 19	1433	478	49	1105
Weston, George H., Boston, Mass. Rotary engine	417,702	Dec. 24	2922	639	49	1868
Weston, Thomas A., assignor to Yale & Towne Manufacturing Company, Stamford, Conn. Hoisting mechanism	413,004	Oct. 15	1794	469	49	363
Westphal, Henry, Chicago, Ill. Spring-motor	413,336	Oct. 22	2347	608	49	474
Westphal, Henry, Chicago, Ill. Flower-stand	413,745	Oct. 29	2803	755	49	595
Westphal, Otto, assignor to Weber & Westphal, Hamburg, Germany. Injector	414,096	Oct. 29	3429	892	49	705
Wetherbee, George C. (See Strickel, Louis, assignor.)						
Wetmore, Jean A., New York, N. Y. Insulated conductor	415,262	Nov. 19	1651	427	49	1072
Wetzel, Horace A., deceased, Tracy, Minn.; J. A. Craig executor. Thrashing-machine	416,430	Dec. 31	3449	902	49	2077
Weyand, Joseph, Guttentberg, N. Y., and W. Lang, New York, N. Y. Hydraulic air-compressor	415,931	Nov. 26	2708	707	49	1249
Weyant, Thomas R., New York, N. Y. Pillow-sham holder	413,119	Oct. 15	1972	513	49	397
Weyburn Company, L. A. (See Briggs, George S., assignor.)						
Weyman, Edward T. (See Menard and Weyman.)						
Weymar, Adolph, Brooklyn, assignor of one-half to F. W. Duntton, New York, N. Y. Saw	416,281	Dec. 3	194	51	49	1406
Whalen, Michael H. (See Easley and Whalen.)						
Whalen, Richard F. C. W. Case, and A. O. Gardner, assignors of two-fifths to E. C. Case and W. W. Driggs, Hannibal, Mo. Railway-brake shoe	412,572	Oct. 8	1152	302	49	234
Wheatley, Samuel E. (See Wheelless, Malone, assignor.)						
Whedon, James D. (See Annable, George G., assignor.)						
Wheeler, Charles A., assignor of one-half to W. F. Healy, Bridgeport, Conn. Steam-engine	412,217	Oct. 1	631	164	49	126
Wheeler, Edgar J. (See Wheeler, Seth and E. J.)						
Wheeler, George E., Chazy, N. Y. Evaporator	417,484	Dec. 24	2550	671	49	1492
Wheeler, Gratian H., Tacoma, Wash. Shipping or other block	415,932	Nov. 26	2711	707	49	1250
Wheeler, Henry P., Boston, Mass., assignor to G. Bryden, Hartford, Conn. Horseshoe machine	417,960	Dec. 24	2716	715	49	1924
Wheeler, Orin S., Troy, N. Y. Snow-scraper	418,327	Dec. 31	3294	861	49	2046
Wheeler Reflector Company. (See Pattison, Richard, assignor.)						
Wheeler, Seth and E. J., Albany, N. Y. Cabinet for wrapping paper	416,202	Dec. 3	75	92	49	1383
Wheeler, William H., Cleveland, Ohio. Tube-cleaner	415,306	Nov. 19	1730	450	49	1087
Wheeler & Wilson Manufacturing Company. (See Steward, Aurelius, assignor.)						
Wheelock, Jerome, Worcester, Mass. Valve system for steam-engines	413,605	Oct. 29	2836	740	49	581
Wheelock, Jerome, Worcester, Mass. Mechanism for controlling cut-off valves	413,606	Oct. 29	2836	740	49	582
Wheelock, Jerome, Worcester, Mass. Metal-horing machine	413,697	Oct. 29	2840	741	49	582
Wheelless, Malone, assignor of one-half to S. E. Wheatley, Washington, D. C. Electric-railway system	413,637	Oct. 22	2745	711	49	556
Wherry, Franklin P. (See Althoff, George, assignor.)						
Whilton, Francis J., Boston, Mass. Device for demagnetizing watches	417,763	Dec. 24	2423	639	49	1869
Whitbeck, George V. H., Rochester, N. Y. Snow-shovel	416,387	Dec. 3	355	94	49	1439
Whitham, James H., Los Angeles, Cal. Hydrocarbon-burner	418,481	Dec. 31	3519	920	49	2091
Whitcomb, William, Gardner, Mass. Washing-machine	415,828	Nov. 26	2547	666	49	1255
Whitcomb, William L. (See Hammond, Fred C., assignor.)						
White, Aaron B., Mendon, Mich. Wheel and axle	413,217	Oct. 22	2125	552	49	433
White, Albert, and G. D. Dudley, assignors to F. Taylor, Lowell, Mass. Plate-lifter	415,344	Dec. 31	3417	867	49	2050
White, Archibald W., San José, Cal. Spray-pump	417,961	Dec. 24	2716	715	49	1925
White, Bruce C., and J. A. Boyd, assignors to Chisholm, Boyd & White, Chicago, Ill. Brick machine	418,009	Dec. 24	2926	726	49	1965
White, Bruce C., and J. A. Boyd, assignors to Chisholm, Boyd & White, Chicago, Ill. Mold-table for brick machines	418,100	Dec. 24	2936	769	49	1966
White, Cassius A., Janakia, Vt. Combined washer and wringer	414,620	Nov. 5	680	177	49	875
White, Charles, assignor to Friedenwald Brothers, Baltimore, Md. Embroidery-cutting machine	412,573	Oct. 8	1153	302	49	234
White, Charles A., et al. (See Fallett, Edward F., assignor.)						
White, Charles N., Channancy, assignor of one-half to K. J. Groves, Davis Station, Mich. Washing-machine	418,431	Dec. 31	3450	902	49	2078
White, Culler D., Gleason Station, Tenn. Step for wagons	415,061	Nov. 19	2298	598	49	1198
White Cycle Company. (See White, Frederick, assignor.)						
White, David S., Bentley, Ill. Change-delivery apparatus	414,466	Nov. 5	438	111	49	828
White Dental Manufacturing Company, S. S. (See Bonwill, William S. A., assignor.)						
White Dental Manufacturing Company, S. S. (See Browne, Arthur W., assignor.)						
White Dental Manufacturing Company, S. S. (See Carrick, Thomas J., assignor.)						
White Dental Manufacturing Company, S. S. (See Starr, Eli T., assignor.)						
White Dental Manufacturing Company, S. S. (See Wilkerson, Basil M., assignor.)						
White, Eli, Mount Morris, assignor to Excelsior Steam Evaporator Company, Perry, N. Y. Fruit-drier	413,589	Oct. 22	2671	693	49	539
White, Franklin R., assignor to Patent Button Company, Waterbury, Conn. Rivet-setting machine	416,282	Dec. 3	194	51	49	1406
White, Frederick, Westborough, Mass., assignor to White Cycle Company, Portland, Me. Tricycle	414,960	Nov. 12	1191	310	49	961
White, Frederick R., Boston, Mass. Combined advertising device and cigar-tip cutter	412,314	Oct. 8	779	202	49	159
White, George, London, Ontario, Canada. Thrashing and separating machine	414,738	Nov. 12	859	222	49	917
White, George, Rock Island, Ill. Brake for vehicles	415,596	Nov. 19	2202	574	49	1180
White, George C., assignor, by mesne assignments, of one-half to M. S. Witmer, Philadelphia, Pa. Steam-sealer	417,520	Dec. 17	2902	552	49	1703
White, George W., New York, N. Y. Hair-curler	417,656	Dec. 17	2950	599	49	1827
White, James. (See Leavitt, Kittredge, and White.)						
White, John G. (See Glond and Dearman, assignors.)						
White, Merritt T. (See Schuppans and White.)						
White, Patrick J., St. Louis, Mo. Tank for sanitary basins	413,500	Oct. 22	2674	694	49	540
White, Peter, St. Louis, Mo. Hydrant-valve	413,628	Oct. 22	2740	712	49	556
White, Rollin, Lowell, Mass. Support for spinning-spindles, &c.	416,530	Dec. 3	566	154	49	1482
White, Samuel J., Fairborough, N. S. Combination trunk-strap and catch	414,099	Oct. 29	3430	892	49	705
White, William, New York, N. Y. Wool-washing machine	413,036	Oct. 29	2841	741	49	592
White, William, Leeds, county of York, England. Flour-dressing machine	418,261	Dec. 31	3347	873	49	2056
White, William B., Quincy, Mass. Pocket-case	415,852	Nov. 26	2580	674	49	1261

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.
			Spec.	Draw.	Vol. Page.
White, William J. (See McAuley and Frisbie, assignors.)					
Whitehead, Berne, Imboden, Ark. Combined cotton chopper and cultivator.	416,880	Dec. 10	1091	394	49 1392
Whitehead, Fernald D., Chicago, Ill. Rail-way-car.	417,136	Dec. 10	1451	394	49 1605
Whitehouse, Alonzo E., Boston, Mass. Folding wire flower-stand.	413,146	Oct. 1	527	139	49 107
Whitehouse, Robert, New York, assignor to F. D. Blake, Yonkers, N. Y. Picker-shock for looms.	415,753	Nov. 26	3445	638	49 1235
Whiteley, Alexander A., St. Louis, Mo. Exercising apparatus.	418,357	Dec. 31	3174	532	49 3922
Whiteley, Fassler & Kelly. (See Whiteley and Bayley, assignors.)					
Whiteley, William N., Springfield, Ohio. Gear-wheel.	415,755	Nov. 26	3448	639	49 1235
Whiteley, William N., Springfield, Ohio. Automatic grain-binder.	415,757	Nov. 26	3450	640	49 1236
Whiteley, William N., and W. Bayley, assignors to Whiteley, Fassler & Kelly, Springfield, Ohio. Knotter for self-binders.	415,754	Nov. 26	3446	638	49 1235
Whiteley, William N., and W. Bayley, Springfield, Ohio, assignors to said Whiteley. Knotting device for grain-binders.	415,756	Nov. 26	3449	639	49 1235
Whitlin, Arthur F., assignor to Whitinsville Spinning Ring Company, Whitinsville, Mass. Traveler-clearer for spinning-machines.	412,574	Oct. 8	1156	303	49 835
Whitlin, Arthur F., assignor to Whitinsville Spinning Ring Company, Whitinsville, Mass. Traveler-clearer for ring-spinning frames.	412,575	Oct. 8	1157	303	49 835
Whitlin, Arthur F., assignor to Whitinsville Spinning Ring Company, Whitinsville, Mass. Traveler-clearer for ring-spinning frames.	412,576	Oct. 8	1158	304	49 835
Whiting, William S., Waterbury, assignor to J. Swan, Seymour, Conn. Extension-bit.	415,988	Nov. 26	3790	730	49 1307
Whitinsville Spinning Ring Company. (See Whitlin, Arthur F., assignor.)					
Whitlock Machine Company. (See Whitlock, Sturges, assignor.)					
Whitlock, Sturges, assignor to Whitlock Machine Company, Birmingham, Conn. Printing-machine.	413,468	Oct. 22	2495	647	49 505
Whitlock, Sturges, Shelton, assignor to Whitlock Machine Company, Birmingham, Conn. Form-roller mechanism for printing-machines.	416,820	Dec. 10	993	368	49 1573
Whitman, Louis F., assignor of one-half to Warwick Cycle Manufacturing Company, Springfield, Mass. Seat attachment for bicycles.	416,699	Dec. 3	819	222	49 1332
Whitney, Aubrey M., Providence, R. I. Rotary tobacco-cutter.	417,962	Dec. 24	2718	716	49 1925
Whitney Coupling Company. (See Whitney, Daniel D., assignor.)					
Whitney, Daniel D., Cornwall, N. Y., assignor to Whitney Coupling Company, Whitinsville, Mass. Thill-coupling.	415,180	Nov. 12	1540	396	49 1041
Whitney, Edmund B., Gloversville, N. Y. Combined carriage and sled.	412,866	Oct. 15	1595	416	49 325
Whitney, Edwin H., assignor to American Ship Windlass Company, Providence, R. I. Ship-windlass.	415,680	Nov. 12	1359	355	49 1015
Whitney, Edwin H., assignor to American Ship Windlass Company, Providence, R. I. Capstan.	415,681	Nov. 12	1360	355	49 1015
Whitney, Henry M., Cornwall, N. Y. Spring-vehicle.	416,351	Dec. 3	301	79	49 1438
Whiton, Lucius E., New London, Conn. Press-copying-press.	417,963	Dec. 24	2722	716	49 1925
Whiton Machine Company, D. E. (See Andrews, George P. and C. R., assignors.)					
Whittaker, Harry M., assignor of two-thirds to E. F. Shellaherger, Beaver Falls, Pa. Tree-box.	414,175	Oct. 29	3547	927	49 730
Whittall, Arthur, Kiddersminster, county of Worcester, England. Tension-regulating device for bobbin-frames.	418,432	Dec. 31	3451	962	49 2078
Whittingham, George H., assignor to Automatic Electric Switch Company, Baltimore, Md. Automatic electric switch.	415,487	Nov. 19	3019	524	49 1143
Whitworth & Company, Joseph. (See Canet, Jean B. O. A., assignor.)					
Wiard, Harry, and J. L. Judd, Syracuse, N. Y. Side-hill plow.	416,433	Dec. 31	3453	962	49 2078
Wichman, Albert C. F., Fort Wayne, Ind. Washing-machine.	414,100	Oct. 29	3431	892	49 706
Wicht, Frank W., Brooklyn, N. Y. Ornamenting-head.	414,664	Nov. 5	749	193	49 888
Wick, Peter S., Chicago, Ill. Ornamenting-head.	415,427	Nov. 19	1916	498	49 1123
Wiegand, Andrew J., assignor of one-half to O. T. Beaumont, Washington, D. C. Firing-attachment for breech-loading guns.	417,693	Dec. 17	2808	610	49 1837
Wieselbrock, Frederick W., and E. Huber, New York, N. Y.; said Huber assignor to said Wieselbrock. Thermo-electric indicator.	415,758	Nov. 26	3452	640	49 1236
Wiget, Jean, assignor to Leeh & Schoenfeld, New York, N. Y. Producing lace tucks on fabrics.	417,456	Dec. 17	1937	517	49 1767
Wiggin, Andrew, Boston, Mass., assignor of one-half to M. A. Barber, Norwich, Conn. Mating-machine.	416,769	Dec. 10	919	348	49 1558
Wiggin, Joseph N., Orange, N. J. Machine for securing window-shades to rollers.	416,881	Dec. 10	1091	394	49 1592
Wiggin, Joseph N., Orange, N. J. Machine for hemming and sewing fringe to shades.	416,882	Dec. 10	1092	394	49 1593
Wiggins, Charles P., Memphis, Tenn. Bushing for split pulleys.	416,632	Dec. 31	3739	862	49 2140
Wiggins, George W., Edison, Ga. Horse-detacher.	412,588	Oct. 22	2479	692	49 639
Wiggs, James A., Jr., Birmingham, Ala. Steam-actuated valve.	413,605	Oct. 15	1796	470	49 363
Wight, Spencer A., Philadelphia, Pa. Vibrating propeller for boats.	415,082	Nov. 19	1363	355	49 1015
Whitman, Merle J., Lynn, Mass. Rheostat.	411,947	Oct. 1	251	65	49 51
Wilber, Elijah S., Englewood, Ill. Heater.	412,443	Oct. 8	939	233	49 165
Wilcomb, Frank, San Francisco, Cal., assignor, by mesne assignments, to Wilcomb Knitting Machine Company, Jersey City, N. J. Knitted undershirt.	412,577	Oct. 8	1158	304	49 835
Wilcomb Knitting Machine Company. (See Wilcomb, Frank, assignor.)					
Wilcox, Benajah F., Woodbriol, and E. S. Chatfield, Addison, N. Y. Automatic wagon-brake.	414,271	Nov. 5	134	32	49 764
Wilcox, Curtis N., Brooklyn, N. Y. Blacking-brush.	415,354	Nov. 19	1810	471	49 1190
Wilcox, Franklin. (See Farker and Wilcox.)					
Wilcox, George W., St. Louis, Mo. Smoke-consuming furnace.	412,007	Oct. 1	327	86	49 67
Wilcox, John W., and J. Williams; said Wilcox assignor of one-half his right to S. A. Riley, Smithville, Mo. Wagon-brake.	414,665	Nov. 5	751	193	49 888
Wilcox, William R., assignor of one-half to J. Gernert, Pittsburgh, Pa. Hosiery-nail.	415,181	Nov. 12	1542	396	49 1042
Wilder, A. and E. (See Wilder, Theodore, assignor.)					
Wilder, Edward B., St. Louis, Mo. Sprague.	416,977	Dec. 10	1211	332	49 1618
Wilder, Theodore C., Huxer, Tex., and A. E. Wilder, Homer, La. Cotton-copper.	411,913	Oct. 1	199	51	49 41
Wilder, William H. (See Donaldson, Walter, assignor.)					
Wilder, William H., Gardiner, N. Y. Lamp.	417,964	Dec. 24	2723	716	49 1926
Wildman, Andrew. (See Hand, William F., assignor.)					
Wilds, Thaddeus E., Scovill, N. D. Draft-equalizer.	415,662	Nov. 19	2299	508	49 1198
Wiley, Edgar C., Independence, Va. Electric railway-signal.	418,258	Dec. 31	3175	832	49 2092
Wiley, Edwin C., Brooklyn, N. Y. Pen.	414,739	Nov. 12	1600	233	49 917
Wiley, Thomas F., Rawdon, near Leeds, England. Apparatus for waterproofing textile fabrics.	416,386	Dec. 3	356	94	49 1439

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & C.	Vol.	Page.
Wilfert, Andreas, Rayne, La. Levee or ditching machine	416,064	Nov. 26	2948 { 767 768 }		49	1338
Wilhelm, John J. (See Anspach and Wilhelm.)						
Wilkinson, Basil M., Baltimore, Md., assignor, by mesne assignments, to S. S. White Dental Manufacturing Company, Philadelphia, Pa. Dental chair	413,156	Oct. 15	2030	529	49	409
Wilkes-Barré Self Closing Hydrant Company. (See Dowling, John, assignor.)						
Wilkes, Peter, Trenton, N. J. Meat-cutting machine	414,131	Oct. 29	3473	902	49	714
Wilkes, Washington, Sylvauga, Ala. Harrow	413,216	Oct. 15	1223	398	49	312
Wilkie, Charles H. (See Smith and Wilkie.)						
Wilkin, Theodore S., Milwaukee, Wis. Log turner	415,315	Nov. 19	1747	454	49	1090
Wilkins Company, S. B. (See Harbaugh and Midgley, assignors.)						
Wilkins Company, S. B. (See Hart and Wilkins, assignors.)						
Wilkins, Sylvester B. (See Hart and Wilkins.)						
Wilkinson, Algernon L., Richmond, Va. Combined sash holder and tightener	418,633	Dec. 31	3760	982	49	2140
Wilkinson, Charles E., Matteawan, N. Y., assignor to Willimantic Linen Company, Hartford, Conn. Cop-holder for sewing-machine shuttles	414,354	Nov. 5	256	64	49	790
Wilkinson, Sydney W. (See Wilkinson, Sydney W., assignor.)						
Wilkinson, George, assignor of three-fourths to J. W. Bailey, C. W. Ryan, Wellsborough, and C. M. Moore, Williamsport, Pa. Truss	416,770	Dec. 10	922	249	49	1559
Wilkinson, Jaher, Fall River, Mass. Let-off motion for looms	416,925	Nov. 26	2247	740	49	1318
Wilkinson, Sydney W., Sheffield, county of York, England, assignor of two-thirds to J. B. Foxwell, East Orange, and F. Wilkinson, Orange, N. J. Apparatus for casting metals	413,687	Oct. 8	1337	348	49	820
Wilkinson, Thomas P., Milford, Mass. Machine for pressing hats	416,245	Dec. 3	134	37, 38		1394
Wilks, Frank H., Newport, R. I. Ventilator for ships, &c.	414,621	Nov. 5	682	177	49	875
Will, August G. W., St. Louis, Mo. Ruling device for slates, &c.	413,591	Oct. 22	2676	694	49	540
Willard, Ephraim. (See Smith and Willard.)						
Willard, Willis B. (See Hinsdill, Henry M., assignor.)						
Willatowsky, August F. L., assignor to Rapid Service Store Railway Company, Detroit, Mich. Store-service apparatus	417,764	Dec. 24	2424	639	49	1869
Willcox, Charles H., New York, N. Y., assignor to J. S. Shaneman, New Brighton, Pa. Feed-water regulator	416,978	Dec. 10	1212	392	49	1618
Willcox & Gibbs Sewing Machine Company, New York, N. Y. Machine for sewing straw braid	412,218	Oct. 1	633 { 165 166 }		49	127
Willcox, Charles H., New York, N. Y., and J. E. A. Gibbs, Raphine, Va., assignors to Willcox & Gibbs Sewing Machine Company, New York, N. Y. Machine for sewing machines	413,609	Oct. 29	2242 { 741 742 }		49	583
Willcox & Gibbs Sewing Machine Company. (See Gibbs, James E. A., assignor.)						
Willcox & Gibbs Sewing Machine Company. (See Willcox and Gibbs, assignors.)						
Willcox & Gibbs Sewing Machine Company. (See Willcox and Nohle, assignors.)						
William, Martin, Ridgeville Corners, Ohio. Saw-ring for hogs	417,616	Dec. 17	2206 { 586 587 }		49	1817
Willmet, George, Englewood, Ill. Motor for hoists	418,328	Dec. 31	3226 { 802 803 }		49	2046
Willmet, Samuel J., et al. (See Newman, Nelson, assignor.)						
Willmets, Reuben, Bedford Falls, assignor of one-half to J. S. Shaneman, New Brighton, Pa. Feed-water regulator	416,978	Dec. 10	1212	392	49	1618
Williams, Alexander R. (See Lumley, Edwin J., assignor.)						
Williams, Allen T., Boston, Mass. Hinge	415,083	Nov. 12	1364	356	49	1016
Williams, Charles D., Philadelphia, Pa. Key-hole guard	412,847	Oct. 15	1596	416	49	325
Williams Company, John R. (See Williams, John R., assignor.)						
Williams, Elkanah G., assignor of one-half to J. Emerson, Pitt, Ohio. Pipe-coupling	417,127	Dec. 10	1433	394	49	1605
Williams, Francis A., Brooklyn, assignor to Blake & Williams, New York, N. Y. Supporting clamp	415,659	Nov. 19	2345	611	49	1298
Williams, Francis O., Blood's Depot, N. Y. Potato-digger	416,903	Dec. 3	77	92	49	1383
Williams, George H. (See MacCoy, Marsh, and Williams.)						
Williams, Henry C., Lovetts, Ohio. Hitching-post	417,617	Dec. 17	2201	586	49	1818
Williams, Ira H., Nevada, Mo. Fruit or nut gatherer	412,688	Oct. 8	1329	348	49	820
Williams, Jacob S., St. Louis, Mo. Boller	414,101	Oct. 29	3432	895	49	706
Williams, James L., Pilot Point, Tex. Distributor for cotton-gun feeders	416,883	Dec. 10	1004	285	49	1203
Williams, James T., Caddo Mills, Tex. Corn-planter	413,311	Oct. 22	2278	592	49	464
Williams, Jacob F. (See Houts, Edward, assignor.)						
Williams, John. (See Wilcox and Williams.)						
Williams, John A., Brooklyn, N. Y. Vending apparatus	414,756	Nov. 12	921	228	49	929
Williams, John A., Brooklyn, N. Y. Vending apparatus	414,787	Nov. 12	922	230	49	929
Williams, John H., Boston, assignor of two-thirds to B. F. Barnard, Wakefield, Mass. Street-railway switch	413,392	Oct. 22	2677	695	49	541
Williams, John H., Boston, assignor of two-thirds to B. F. Barnard, Wakefield, Mass. Street-railway switch	413,593	Oct. 22	2679	695	49	541
Williams, John H., Boston, assignor of two-thirds to B. F. Barnard, Wakefield, Mass. Railway-switch	413,594	Oct. 22	2680	696	49	541
Williams, John R., Newark, N. J., assignor to J. R. Williams Company, New York, N. Y. Tobacco stripping and hooking machine	415,663	Dec. 31	3501 { 990 992 }		49	2148
Williams, John S., Brooklyn, N. Y. Oil-store and reservoir therefor	414,740	Nov. 12	861	223	49	917
Williams, Louis N., et al. (See Morley, Joseph D., assignor.)						
Williams, Louis N. D., assignor of one-half to R. W. Scott, Philadelphia, Pa. Knit shirt	412,054	Oct. 1	397	102	49	80
Williams, Louis N. D., assignor of one-half to R. W. Scott, Philadelphia, Pa. Knitted shirt	412,055	Oct. 1	398	103	49	80
Williams, Ray P., Boise City, Idaho Ter. Safety attachment for gasburners	416,979	Dec. 10	1213	342	49	1618
Williams, Richard R., Brooklyn, N. Y. Combined index-pamphlet and file	412,147	Oct. 1	529	140	49	107
Williams, Robert, et al. (See Patrick, Marcus C., assignor.)						
Williams & Rogers. (See Horton, Peter D., assignor.)						
Williams, Samuel P. (See Deming, Henry W., assignor.)						
Williams, Warren, and C. W. Munz, Detroit, Mich. Extension-table	416,531	Dec. 3	569 { 154 155 }		49	1483
Williams, William, et al. (See Billmeyer, Cyrus F., assignor.)						
Williams, William, Indianapolis, Ind. Sweat-pad fastener	417,893	Dec. 24	2615	689	49	1905
Williams, William E., Chicago, Ill. Metal wheel	416,434	Dec. 31	3763	983	49	2140
Williamson, Charles D., et al. (See Morley, Joseph D., assignor.)						
Williamson, David, Brooklyn, N. Y. Tool-post for lathes	414,788	Nov. 12	924	229	49	930
Williamson, David, Brooklyn, N. Y. Rotary engine	415,953	Nov. 26	2747	717	49	1298
Williamson, David, Brooklyn, N. Y. Rotary engine	415,954	Nov. 26	2749	718	49	1299
Williamson, Samuel S. (See Smith and Williamson.)						
Willimantic Linen Company. (See Pauchomer, Albert H., assignor.)						
Willimantic Linen Company. (See Wilkinson, Charles E., assignor.)						
Willing, Charles G., et al. (See Kneuper, Frederick J., assignor.)						
Willis, Isaac H., Marceline, Mo. Slat-case	412,817	Oct. 15	1534	399	49	312
Willis, James, Cornwall, N. Y. Coupling-sleeve	415,759	Nov. 26	2437	641	49	1277

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & Val.	Page.	
Willits, Ed L., assignor of one-half to W. C. Murray, Alma, Nebr. Crate or fruit-case	414,622	Nov. 5	692	178	49 875	
Willits, Harry, New Boston, Ill. Corn-cutter	412,578	Oct. 8	1159	304	49 253	
Willmer, Arnold, Hanover, Prussia, Germany, assignor to Korting Gas Engine Company, (limited), New York, N. Y. Apparatus for producing intermittent motion	417,066	Dec. 24	2737	717	49 1936	
Wilmarth, Thomas D., Saundersville, Mass. Kink-arrester for spinning-frames	413,746	Oct. 29	2904	756	49 505	
Wilshire, Frederick R., Berrina, New South Wales, assignor of one-half to W. Fleming, Sydney, Australia, and G. C. Ewing, Enfield, Mass. Thill-coupling	414,666	Nov. 5	751	193	49 888	
Wilson, Carlos G., Milledgeville, Ga. Baling-press	413,271	Oct. 22	2201	573	49 449	
Wilson, Carlos G., Milledgeville, Ga. Baling-press	413,505	Oct. 22	2263	574	49 542	
Wilson, Charles F., assignor to himself and R. C. Macy, Breckenridge, Colo. Device for dumping cars	415,488	Nov. 19	2021	535	49 1144	
Wilson, Charles H., and E. W. Berry, Paducah, Ky. Steam-boiler furnace	412,868	Oct. 15	1597	416	49 325	
Wilson, F. Cortez. (See Borchardt, Julius C., assignor.)						
Wilson, F. Cortez, Chicago, Ill. Pump-valve	412,101	Dec. 24	2939	769	49 1065	
Wilson, George C., et al. (See Warner and Skinner, assignors.)						
Wilson, George H., Utica, N. Y. Folding cut	415,507	Nov. 19	2904	575	49 1180	
Wilson, George W., Boston, Mass. Incandescent electric lamp	414,741	Nov. 12	862	223	49 918	
Wilson, George W., Boston, Mass. Incandescent electric lamp	414,742	Nov. 12	863	223	49 918	
Wilson, Homer T., Harrodsburg, assignor to Merchants Roll Paper Printer and Cutter Company, Lexington, Ky. Paper-reel with printing attachment	416,821	Dec. 10	995	269	49 1574	
Wilson, Horace M., Cambridge, Mass. Coin-operated apparatus	412,315	Oct. 8	781	203	49 160	
Wilson, Horace M., Cambridge, Mass. Telephone-receiver holder	414,961	Nov. 12	1193	311	49 981	
Wilson, James G., New York, N. Y. Venetian blind	414,743	Nov. 12	864	224	49 918	
Wilson, John, assignor to H. H. Sanderson, trustee, New York, N. Y. Steam-boiler	417,303	Dec. 17	1709	460	49 1725	
Wilson, John, New York, and A. Mason, Brooklyn, assignors to H. H. Sanderson, trustee, New York, N. Y. Hydrocarbon-burner	417,302	Dec. 17	1708	459	49 1724	
Wilson, John C., Yonkers, N. Y. Hat-poucing machine	414,355	Nov. 5	257	64	49 790	
Wilson, John C., Boston, Mass. Electric circuit	417,304	Dec. 17	1709	460	49 1725	
Wilson, John C., Boston, Mass. Electric circuit	417,305	Dec. 17	1710	460	49 1725	
Wilson, John R., Greenburg, Pa. Brake	415,853	Nov. 26	3581	675	49 1361	
Wilson, Joshua. (See Noble, Lewis C., assignor.)						
Wilson, Michael H., Brooklyn, N. Y. Store or shop fixture	416,980	Dec. 10	1214	332	49 1619	
Wilson, Newton R., Socorro, N. Mex. Ter. Crucible for lead-furnaces	416,085	Nov. 26	2652	768	49 1339	
Wilson, Newton R., St. Louis, Mo. Separating lead bullion from matte and slag	416,086	Nov. 26	2653	769	49 1339	
Wilson, Oliver G., Franklin, Ky. Billiard-register	412,435	Oct. 22	2436	633	49 404	
Wilson, Robert, Grubville, Mo. Bag-fastener	416,771	Dec. 10	923	249	49 1559	
Wilson, Robert, Allen, Pa. Cultivator	418,300	Dec. 31	3240	848	49 2035	
Wilson, Robert A., Lexington, Mo. Padlock-cover	416,433	Dec. 3	419	113	49 1454	
Wilson, Robert E., New Orleans, La. Cane-cutter	415,234	Nov. 19	1012	415	49 1064	
Wilson, Thomas, Jr., Watervliet, N. Y. Store-service apparatus	413,991	Oct. 29	3364	853	49 669	
Wilson, William, Chicago, Ill. Hydrocarbon-burner	417,457	Dec. 17	1939	517	49 1768	
Wilton, William E. (See Travers, Herman R., assignor.)						
Wilt, Samuel W., Clifton Mills, W. Va. Burglar-alarm	412,869	Oct. 15	1599	417	49 325	
Wilton, Charles, Loudon, county of Middlesex, assignor to J. Hewitt, Leicester, England. Boot or shoe	416,532	Dec. 3	570	155	49 1423	
Wiltse, Elton C. (See Wiltse, Jacob M. and B. C.)						
Wiltse, Jacob M. and B. C., Ashley City, Pa. Box for retailers' use	415,010	Nov. 12	1963	390	49 996	
Wiman, Christian H., Blandville, Ky. Fence	416,026	Nov. 26	2649	746	49 1319	
Winchell, James F., assignor to Foss Manufacturing Company, Springfield, Ohio. Crushing and grinding mill	416,204	Dec. 3	78	23	49 1384	
Winchell, James F., assignor to Foss Manufacturing Company, Springfield, Ohio. Crushing and grinding mill	416,533	Dec. 3	571	155	49 1483	
Winchester, Edward S., Dorchester, Mass. Latch	416,308	Dec. 3	236	61	49 1416	
Winchester, Edward S., Dorchester, Mass. Latch	416,309	Dec. 3	237	62	49 1416	
Winchester, Edward S., Dorchester, Mass. Latch	416,310	Dec. 3	239	62	49 1416	
Winchester, Edward S., Dorchester, Mass. Knob attachment	416,311	Dec. 3	240	62	49 1416	
Winchester, Edward S., Boston, Mass. Latch	416,312	Dec. 3	241	63	49 1416	
Winchester, William, Mare Island, Cal. Leak-stopper for vessels	417,494	Dec. 24	2616	689	49 1905	
Windmill, James E., Brierley Hill, county of Stafford, assignor to D. Rylands, Barnsley, England. Mold for glass bottles, jars, and other like articles	413,879	Oct. 29	3098	807	49 634	
Winget, Marion A., Columbus, Ohio. Cigar-mold	416,534	Dec. 3	574	156	49 1484	
Wingo, Charles E. (See Merrill and Wingo.)						
Winkelmann, Johann F. A., Schell City, Mo. Corn-planter	412,156	Oct. 1	532	140	49 107	
Winkler, Charles F., Hoosick Falls, N. Y. Dynamo-electric machine	412,319	Oct. 8	835	212	49 170	
Winkler, Charles F., Hoosick Falls, N. Y. Commutator	412,350	Oct. 8	836	218	49 170	
Winkler, Charles F., Hoosick Falls, N. Y. Dynamo-electric machine	412,351	Oct. 8	837	218	49 170	
Winkler, Charles F., Hoosick Falls, N. Y. Dynamo-electric machine	412,352	Oct. 8	838	219	49 170	
Winkler, Charles F., Hoosick Falls, N. Y. Dynamo-electric machine or motor	412,353	Oct. 8	839	219	49 171	
Winn, James N., Darien, Ga. Station-indicator	417,495	Dec. 24	2617	689	49 1906	
Winnek, Frederick G., assignor of one-half to J. H. Hunter, Leavenworth, Kans. Water cooler and filter	415,598	Nov. 19	2904	575	49 1180	
Winsor, Paul, assignor to Westinghouse Electric Company, Pittsburg, Pa. Lightning-arrester	417,695	Dec. 17	2315	611	49 1809	
Winsor, Paul, and A. Wurtz, assignors to Westinghouse Electric Company, Pittsburg, Pa. Lightning-arrester	417,694	Dec. 17	2313	611	49 1838	
Winspear, James H. (See Saville and Winspear.)						
Winstinger, Camille E. D., Brussels, Belgium. Making bicaleic phosphate	418,259	Dec. 31	3177		49 2023	
Winters, George W., Knoxville, Iowa. Washing-machine	412,157	Nov. 5	63	178	49 875	
Winters, Milton I., Altie's Station, Va. Buckle	412,158	Nov. 1	533	140	49 106	
Winton, Henry D., Wellesley Hills, Mass. Match-safe	414,467	Nov. 5	439	111	49 829	
Winton, Walter W., Scranton, Pa. Pen	414,744	Nov. 12	865	224	49 918	
Wire Fabric Company. (See Ramsey, Charles B., assignor.)						
Wire Grip Fastening Company. (See Robinson, Stillman W., assignor.)						
Wires, Ephraim L. (See Kimball, Joseph E., assignor.)						
Wirick, Valentine, Rochelle, Ill., assignor to himself, and J. H. Sutphen, Huron, Dak. Ter. Drilling-machine	413,218	Oct. 22	2126	552	49 433	

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Wirt, Charles, Orange, N. J. Lightning-arrester	414,356	Nov. 5	259	65	49	790
Wirtz, Adolphus J. and C. H., and H. J. C. Richter, Grand Harbor, Dak. Ter. Band-cutter and feeder	413,992	Oct. 29	3266	853	49	670
Wirtz, Adolphus J., H. J. C. Richter, Grand Harbor, Dak. Ter., and C. H. Wirtz, Northfield, Minn. Feeder-platform	413,993	Oct. 29	3268	854	49	671
Wirtz, Charles H. (See Wirtz, Richter, and Wirtz.)						
Wise, Edwin E. (See Meriman, Ralph, assignor.)						
Wise, Isaac G., Brimfield, Ohio. Seed-planter and cultivator	416,884	Dec. 10	1095	295	49	1594
Wise, J. B. (See Moffett, Joseph K., assignor.)						
Wise, James U., Dow City, Iowa. Hinge	416,044	Nov. 26	2840	732	49	1325
Wise, Nathaniel, and A. C. Petersen, Arcadia, La. Folding table	416,116	Oct. 8	783	263	49	160
Wiseman, Robert A., Fair Grove, Mo. Feed-cutter	416,600	Oct. 31	3712	969	49	2321
Wistrom, Johan F., Chicago, Ill. Bridge-gate	415,011	Nov. 12	1267	331	49	996
Withers, Thomas B., and M. Edgar, Jr., Monticello, Wis. Rock-drilling machine	417,618	Dec. 17	2201	586	49	1819
Witmer, Melicent S. (See White, George C., assignor.)						
Witteholte, Emile J., Camden, N. J., assignor to J. J. Boyle, Philadelphia, Pa. Music-leaf turner	417,696	Dec. 17	2316	612	49	1839
Witting, Theodore L., Lawrence, Kans. Dispensing apparatus for soda-water, &c.	414,972	Nov. 5	136	33	49	764
Witting, Theodore L., Lawrence, Kans. Measuring-faucet	418,601	Dec. 31	3713	970	49	2131
Wittmann, Hermann, assignor of one-half to C. O. Choso, Rudolph, Wis. Fan attachment for rockers	416,081	Dec. 10	1215	333	49	1619
Witzemann, Louis, et al. (See Crosby, Frank P., assignor.)						
Wixom, Arthur A. (See Gay and Wixom.)						
Wixon, Oscar F., New Bedford, Mass. Anchor	411,948	Oct. 1	253	65	49	51
Wnuck, Charles E., Cincinnati, Ohio. Coach-gear	415,387	Nov. 19	1701	441	49	1081
Wock, John, assignor to Canton Steel Roofing Company, Canton, Ohio. Eaves-trough	415,854	Nov. 26	2282	675	49	1262
Woold, Charles V., Leccas, Waltham, Mass.; D. O'Hara administrator. Machine for polishing watch-pinions	417,377	Dec. 17	1825	490	49	1746
Wogaman, Harry H. (See Brandenburg and Wogaman.)						
Wojtkow, Louis, assignor to S. Sternan & Co., New York, N. Y. Stand	416,293	Dec. 3	196	52	49	1406
Wohrecht, John M., Tarrytown, N. Y. Frank	412,870	Oct. 15	1060	417	49	325
Wolstein, Solomon, New York, N. Y. Combined match-safe and ticket-holder	413,006	Oct. 15	1708	470	49	364
Wolf Brothers. (See Mohs, Julius, assignor.)						
Wolf, Frederick W., Chicago, Ill. Liquid-receptacle	415,428	Nov. 19	1917	499	49	1192
Wolfe, Charles F. (See Smith, Joshua M., assignor.)						
Wolfe, Gordon G., assignor to Fuller & Warren Company, Troy, N. Y. Magazine-stove	413,272	Oct. 22	2203	574	49	449
Wolfe, John E., New York, N. Y. Railway-switch	412,008	Oct. 1	328	87	49	67
Wolfe, Joseph U. (See Killinger and Wolfe.)						
Wolfe, William H. (See Hubbel, Thomas J., assignor.)						
Wolf, Arnovitz, New York, N. Y. Ventilator for buildings	414,851	Nov. 12	1028	265	49	949
Wolf, Carl H., Blankenese, Prussia, Germany, assignor to F. Weber & Co., Philadelphia, Pa. Galvanic dry element	417,458	Dec. 17	1940		49	1768
Wolf, Raphael H., New York, N. Y. Dress-spring	412,152	Oct. 1	534	141	49	108
Wolf, Raphael H., New York, N. Y. Dress-spring	413,183	Oct. 1	534	141	49	108
Wolke, John, assignor of one-fifth to D. E. Pierson, Jacksonville, Ill. Windmill	414,468	Nov. 5	443	112	49	830
Wolke, John, assignor of one-fifth to D. E. Pierson, Jacksonville, Ill. Machine-brake	414,469	Nov. 5	443	112	49	830
Wollheim, Henry, Milwaukee, Wis. Combined table and bench	415,371	Nov. 19	1834	478	49	1105
Wolstenholme, James. (See Hardsart and Wolstenholme.)						
Wood, Alvinus B. (See Wood, Joseph W., assignor.)						
Wood, Charles W., Baltimore, Md., assignor of one-half to G. Draper & Sons, Hopedale, Mass. Spool-holder	413,994	Oct. 29	3270	854	49	671
Wood, Edgar J., Brooklyn, N. Y. Meter for steam	418,329	Dec. 31	3286	862	49	2046
Wood, Eliza A., Easton, N. Y. Mop wringer	416,987	Nov. 26	2255	770	49	1339
Wood, Elizabeth E., Topeka, Kans. Shirt-protecting garment	413,426	Oct. 29	2438	633	49	494
Wood, Frank E. (See Wood, Josiah W. and F. E.)						
Wood, Frank W., et al. (See Nichols, John, assignor.)						
Wood, James F. and J. F., Wilmington, Del. Extensible car-step	417,866	Dec. 24	2619	690	49	1906
Wood, James J., Brooklyn, N. Y. Electric-current indicator	412,354	Oct. 8	840	219	49	171
Wood, James J., Brooklyn, N. Y. Electrical switch-board	412,818	Oct. 15	1225	399	49	312
Wood, James J., Brooklyn, N. Y. Armature for dynamos	418,301	Dec. 31	3541	848	49	2035
Wood, James J., Brooklyn, N. Y. Automatic regulator for dynamo-electric machines	418,302	Dec. 31	3545	848	49	2036
Wood, James J., Brooklyn, N. Y. Current-regulator for dynamo-electric machines	418,303	Dec. 31	3551	850	49	2037
Wood, Jesse. (See Campbell, Guy W., assignor.)						
Wood, John B., Providence, R. I. Gate for railway-cars	411,974	Oct. 1	983	73	49	57
Wood, John B., Providence, R. I. Gate for railway-cars	418,362	Dec. 31	3549	873	49	2056
Wood, John W. (See Wood, James F. and J. F.)						
Wood, John W., Sr., Altoona, Pa. Device for pulling cross-heads from piston-rods	413,700	Oct. 29	2845	742	49	583
Wood, Joseph, Red Bank, N. J. Car-axle lubricator	416,535	Dec. 3	574	156	49	1484
Wood, Joseph W., assignor to himself and A. B. Wood, Baraboo, Wis. Device for binding and elevating hay-sticks	415,429	Nov. 19	2022	525	49	1144
Wood, Josiah W. and F. E., Beaver Centre, Pa. Horse-power	418,102	Dec. 24	2940	770	49	1967
Wood, Lyman, Racine, Wis. Adjustable fire lock	418,482	Dec. 31	3521	921	49	2092
Wood, Milton E., Brooklyn, N. Y. Apparatus for distillation of ammoniacal liquids	415,133	Nov. 12	1431	374	49	1090
Wood Mowing and Reaping Machine Company, Walter A. (See Brown, David R., assignor.)						
Wood, Nehemiah S., Chelsea, Mass. Rotating self-closing case for pantry-slides	416,146	Nov. 26	2059	794	49	1239
Wood, Rufus, et al. (See Matheson, Robert, assignor.)						
Wood, Walter J., Atlanta, Ga. Oven-door	417,530	Dec. 17	2063	552	49	1793
Wood, Will B., Shamokin, Pa. Theatrical appliance for optical illusions	415,084	Nov. 12	1764	356	49	1016
Wood, Will B., Shamokin, Pa. Metallic corset for theatrical purposes	415,085	Nov. 12	1366	357	49	1016
Woodall, Adelaide H., Quincy, Ill., and W. S. Romme, Darien, Conn. Reverse-movement attachment for type-writing machines	418,930	Dec. 31	3179	833	49	2022
Woodard, George F., and G. H. Carroll, Sterling, Ill. Road-cart	413,332	Oct. 22	2206	599	49	469
Woodard, Lyman S., Oswego, Mich. Reversing device	417,619	Dec. 17	2292	567	49	1818
Woodbridge, James E., assignor to Pratt & Whitney Company, Hartford, Conn. Screw-cutting die	413,701	Oct. 29	2846	742	49	584
Woodbridge, James E., assignor to Pratt & Whitney Company, Hartford, Conn. Screw-cutting tool	414,357	Nov. 5	260	65	49	791
Woodbury, Levi. (See Graham, Edmund H., assignor.)						
Woodcock, Charles H. (See Brown, William H., assignor.)						
Woodhams, Joseph, Detroit Mich. Window-screen	415,989	Nov. 26	2791	730	49	1308

Alphabetical list of patents, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Spec.	Draw.	Vol.	Page.
Woodhouse, Alfred, London, England. Apparatus for the amalgamation of gold.	416,390	Dec. 3	359	94	49	1440
Woodling, Reason L. (See Woodling, William and R. L.)						
Woodling, William and R. L., Loganport, Ind. Corn-planter	413,596	Oct. 22	2685	098	49	364
Woodmansey, Henry F. (See Taylor, Woodmansey.)						
Woodruff, Charles B., Duluth, Minn. Jost-crowning machine	413,007	Oct. 15	1799	471	49	542
Woodruff, Edmund W., Washington, D. C. File or document holder	412,154	Oct. 1	533	141	49	108
Woodruff, Edmund W., Washington, D. C. File or document holder	415,429	Nov. 19	1918	409	49	1122
Woods, Arsen F., Lago, assignor to H. E. Misener, Serbia, Ind. Gunpowder	418,635	Dec. 31	3764		41	2140
Woods, Justice O., New York, N. Y. Evaporator for disinfectants, &c.	415,702	Oct. 29	2847	742	49	354
Woods, Luther T., et al. (See Irving, John B., assignor.)						
Woods Machine Company, S. A. (See Woods and Thomas, assignors.)						
Woods, Maude P., Lynn, Mass. Cuff-button	415,760	Nov. 26	2457	641	49	1237
Woods, Solomon A., and J. E. Thomas, Boston, Mass., assignors to S. A. Woods Machine Company, of Massachusetts. Planing-machine	418,345	Dec. 31	3319	867	49	3050
Woodsford, Bedford, Chelsea, London, England. Pocket-fastener	412,906	Oct. 15	1656	432	49	335
Woodward, George W., Brooklyn, assignor to Ansonia Brass and Copper Company, New York, N. Y.	413,469	Oct. 22	2497	647	49	505
Woodward, George W., Brooklyn, assignor to Ansonia Brass and Copper Company, New York, N. Y. Lamp	417,690	Dec. 17	2204	587	49	1818
Woodward, George W., Brooklyn, assignor to Ansonia Brass and Copper Company, New York, N. Y. Lamp	417,621	Dec. 17	2205	587	49	1818
Woodworth, Jasper A., Saugatuck, Mich. Stump-extractor	412,819	Oct. 15	1528	399	49	313
Woodworth, Orson H., Columbia City, Ind. Combined rake and ground-leveler	415,269	Nov. 19	2206	575	49	1150
Woodworth, Orson H., Columbia City, Ind. Spacing-instrument	416,505	Dec. 3	81	23	49	1384
Woolley Electric Company. (See Pullman, Harry B., assignor.)						
Woolf, Albert E., assignor to B. Lowry, New York, N. Y. Secondary battery	418,483	Dec. 31	3521	921	49	2092
Woolsey, Elliott H., Oakland, Cal. Speculum-irrigator	413,470	Oct. 22	2498	647	49	505
Woolston, Elijah B., Cropwell, N. J. Grate	412,317	Oct. 8	783	204	49	160
Woolworth, Calvin C. (See Rosa, James A. M., assignor.)						
Worcester Gas Iron Company. (See Upham and Fay, assignors.)						
Worden, Alva, Ypsilanti, Mich. Tire-bolt wrench	415,761	Nov. 26	2458	641	49	1237
Worth, William O., Cedar Rapids, Iowa. Steam-engine	412,444	Oct. 8	862	233	49	196
Worthington, Amasa, Brooklyn, N. Y. Sectional steam-boiler	412,620	Oct. 15	1529	400	49	313
Worthington, Ralph A. (See King and Jennings, assignors.)						
Worthington, William S., Winfield, N. Y. Inhaler	414,358	Nov. 5	262	66	49	791
Wotton, James A., and W. R. Polk, Jr., Atlanta, Ga.; said Wotton assignor to said Polk. Secondary battery	415,690	Nov. 19	2207	575	49	1150
Wright, Charles A., Philadelphia, Pa. Machine for treating cards	413,995	Oct. 29	3270		49	671
Wright, Charles W., assignor of one-half to R. P. Wright, Philadelphia, Pa. Shovel or spade	412,355	Oct. 8	845	230	49	171
Wright, George E., Birmingham, county of Warwick, England. Open gas-burner	417,765	Dec. 24	2425	639	49	1809
Wright, George H. L., San Francisco, Cal. Signal device for cable-railway crossings	413,120	Oct. 15	1973	514	49	398
Wright, Granville S. (See Darnell, Calvin F., assignor.)						
Wright, Granville S., assignor to Sargent & Company, New Haven, Conn. Coat and hat hook	417,128	Dec. 10	1453	394	49	1666
Wright, Granville W., assignor to Sargent & Company, New Haven, Conn. Coat and hat hook	417,129	Dec. 10	1454	394	49	1666
Wright, James M., McKees Rocks, Pa. Bake-oven	414,102	Oct. 22	3433	893	49	706
Wright, John A., Keene, N. H. Agricultural boiler or heater	412,821	Oct. 15	1532	400	49	313
Wright, John S. (See Hamblin and Goldsmith, assignors.)						
Wright, Lyndner, Jr. (See Wright, Marcus L., assignor.)						
Wright, Marcus L., Newton, assignor of one-half to L. Wright, Jr., Newark, N. J. Last-block fastener	417,350	Dec. 17	1786	486	49	1738
Wright, Morgan. (See Stewart, Walter H., assignor.)						
Wright, Richard P. (See Wright, Charles W., assignor.)						
Wright, Walter S. (See Boeken and Wright.)						
Wright, Walter S., Chicago, Ill. Gas-generating apparatus	414,470	Nov. 5	447	113	49	830
Wright, Willard L., Pittsburg, Pa. Picture-frame	412,261	Dec. 31	3183	833	49	3024
Wright, William, Wilmington, Del. Rubbing-iron for railway-vehicles	414,743	Nov. 12	865	224	49	918
Wright, William H. (See Hall and Wright.)						
Wright, William H., Buffalo, N. Y. Vehicle hub and axle	414,830	Nov. 12	988	255	49	942
Wright, William H., Buffalo, N. Y. Vehicle axle	414,831	Nov. 12	989	256	49	943
Wright, William H., and H. J. Rodgers, Waverly, Ill. Leather-channelling machine	417,459	Dec. 17	1940	518	49	1768
Wuerpel, August C., Tampa, Fla. Composition for preserving oranges	413,249	Oct. 22	2169		49	442
Wurtz, Henry. (See Wallis, William J., assignor.)						
Wunder, Henry, assignor to Page & Krause, Manufacturing and Mining Company, St. Louis, Mo. Machine for washing ore	414,103	Oct. 29	3434	893	49	707
Wurtele, Christian, St. Joseph, Mo. Shoe	417,460	Dec. 17	1942	518	49	1768
Wurts, Alexander. (See Winsor and Wurts.)						
Wurts, Alexander, assignor to Westinghouse Electric Company, Pittsburg, Pa. Multiple thermal cut-out	413,703	Oct. 29	2918	743	49	584
Wüterich, Emil A., London, county of Middlesex, England. Nicotine-collector	415,690	Nov. 19	2246	612	49	1308
Wyant Manufacturing Company. (See Beach, Elias, assignor.)						
Wyant, Joseph, Brussels, Belgium, assignor to Fuel Gas and Electric Engineering Company, (limited), Pittsburg, Pa. Gas-stove	415,891	Nov. 26	2933	689	49	1473
Wyeth, David G., Newark, Ohio. Fifth-wheel for buggies	416,313	Dec. 3	242	13	49	1217
Wyman, Horace, assignor to Crompton Loom Works, Worcester, Mass. Loom	412,689	Oct. 8	1340	348	49	270
Wyman, Horace, and A. A. Gordon, assignors to Crompton Loom Works, Worcester, Mass. Lever for looms	414,852	Nov. 12	1029	265	49	940
Yale, Charles O., New York, N. Y. Burglar-proof vault	416,700	Dec. 3	820	223	49	1332
Yale & Towne Manufacturing Com. any. (See Lincoln, Charles L., assignor.)						
Yale & Towne Manufacturing Company. (See Taylor, Warren H., assignor.)						
Yale & Towne Manufacturing Company. (See Weston, Thomas A., assignor.)						
Yates, Colombia L., Upper Lisle, N. Y. Bag-holder	412,822	Oct. 15	1533	401	49	314
Yates, Robert, Omaha, Neb., assignor to himself, C. Kaestner, and F. A. Hecht, Chicago, Ill. Rotary pulverizer	412,923	Oct. 15	1534	401	49	314
Yielding, Richard, assignor of one-half to F. Geuther, Detroit, Mich. Apparatus for reducing metal to powder	417,622	Dec. 17	2206	587	49	1818
Yocom, John, assignor of one-half to R. Bowyer, Ridgetown, Ontario, Canada. Machine for pressing beams	416,701	Dec. 3	821	223	49	1333
Yocom, Harry C., and M. V. Kacer, St. Louis, Mo. Jacket for bottles	415,134	Nov. 12	1435	375	49	1080

Alphabetical list of patentees, October to December, inclusive—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Yoe, Henry, assignor to Rapid Service Store Railway Company, Detroit, Mich. Store-service apparatus	413,906	Oct. 29	3276	855	49	672
York, Levi D., Portsmouth, Ohio. Steam-holler furnace	411,949	Oct. 1	254	65	49	51
Yost Writing Machine Company. (See Wallace, Casper D., assignor.)						
Yountans, Carlton F. (See Brown, Bush C., assignor.)						
Young, Alexander, Honolulu, Oahu, Hawaiian Islands. Diffusion apparatus	418,992	Dec. 31	3186	834	49	2024
Young, Aptha R., Orange, N. J. Washing-machine	415,762	Nov. 26	2459	642	49	1237
Young, Augustin H. and R. Bolden, Brooklyn, N. Y. Shoot-metal can	416,536	Dec. 3	576	156	49	1184
Young, Charles H., Manchester, N. H. Widened tubular-knit fabric and knitting the same	412,057	Oct. 1	402	104	49	81
Young, Charles H., Manchester, N. H. Widened tubular-knit fabric and knitting the same	412,058	Oct. 1	404	104	49	81
Young, Charles H., Manchester, N. H. assignor of two-thirds to W. Zlock, R. Emerson, W. A. Talcott, Rockford, Ill., and A. P. Olzendam, Manchester, N. H. Stocking and knitting the same	412,056	Oct. 1	401	103	49	80
Young, Charles I., Princeton, N. J., assignor to Westinghouse Electric Company, Pittsburgh, Pa. Lightning-arrestor	414,624	Nov. 5	685	178	49	876
Young, Cornelius, Selma, Ala. Trunk and condenser for cotton-gins	412,690	Oct. 8	1344	349	49	271
Young, Edwin J., Wadsworth, Ohio. Machine for making matches	418,103	Dec. 24	2941	770	49	1867
Young, Frederic O., Revere, Mass. Bank-note holder	415,763	Nov. 26	2460	642	49	1237
Young, John C., and G. A. Davis, Necedah, Wis. Friction-clutch	414,713	Nov. 5	137	33	49	765
Young, John G., Jr., Bellevue, Iowa. Attachment for vapor-stoves	417,130	Dec. 10	1455	395	49	1616
Young, Joseph H. (See Crawford, James, assignor.)						
Young, Lorenzo D., Jr. (See Lefevre and Young.)						
Young, McClintock. (See Barber, Baughman, and Young.)						
Young, McClintock, Frederick, Md. Securing wire or the like in wooden bodies	412,691	Oct. 8	1345	350	49	271
Young, McClintock, Frederick, Md. Brush	412,692	Oct. 8	1346	350	49	271
Young, McClintock, Frederick, Md. Ink-eraser	413,708	Oct. 29	2978	776	49	609
Young, McClintock, Frederick, Md. Machine for boring brush-bodies	414,471	Nov. 5	449	113	49	231
Young, McClintock, Frederick, Md., assignor to Diamond Match Company, of Connecticut. Machine for unfilling matches	415,933	Nov. 26	2712	708	49	1290
Young, McClintock, Frederick, Md., assignor to Diamond Match Company, of Connecticut. Machine for cutting and filling match-splints	415,934	Nov. 26	2714	710	49	1291
Young, Thomas J., North Plainfield, N. J. Door-lock	413,333	Oct. 22	2307	599	49	469
Young, Thomas K., White Hall, Ill. Gate	414,472	Nov. 5	451	114	49	231
Young, William J., Centreville, La. Tooth and tooth-carrier for digging-machines	416,982	Dec. 10	1216	333	49	1619
Young, William P., Bear Wallow, Ky. Stirrup-strap loop	412,525	Oct. 15	1537	402	49	314
Youngblood, Israel E., Mitchell, Dak. Ter. Mop	412,318	Oct. 8	784	201	49	160
Younger, Alexander, assignor of one-half to W. B. Chisholm, Cleveland, Ohio. Regenerative heating-furnace	414,274	Nov. 5	139	33, 34	49	765
Youngs, Fred E., Pittsburgh, Pa. Proportional meter	412,824	Oct. 15	1335	402	49	314
Youngs, Fred E., Pittsburgh, Pa. Proportional meter	413,181	Oct. 15	1955	514	49	318
Younts, Livingston H., Cairo, Ill. Ratchet-twister	417,811	Dec. 10	1574	436	49	1489
Zallud, Carl. (See Pförzheimer, Isaac, assignor.)						
Zallud, Charles. (See Pförzheimer, Isaac, assignor.)						
Zerfas, Joseph, and W. E. Stein, New York, N. Y. Scuttle-lock	412,356	Oct. 8	845	230	49	172
Zesiger, John L., Switzer, Ohio. Machine for dishing wheels and cooling tires	417,897	Dec. 24	2820	690	49	1907
Zetter, Emil. (See Michel, Carl, assignor.)						
Ziegler, Christian. (See Loth and Ziegler.)						
Zigang, Jacques P., Domfront, France. Electric trumpet	412,990	Nov. 26	2792	731	49	1208
Zimmerman, Eli, Pamela Four Corners, assignor to C. E. Makepeace, Watertown, N. Y. Washing-machine	414,176	Oct. 29	3547	927	49	730
Zimmerman, Arnold W., Chicago, Ill., assignor to Zimmerman Refrigerator Company, of Illinois. Refrigerator car and chamber	417,801	Dec. 24	2421	654	49	1880
Zimmerman, Peter C., Shiremanstown, Pa. Gate-hinge	414,932	Nov. 12	1146	299	49	973
Zimmerman Refrigerator Company. (See Zimmerman, Arnold W., assignor.)						
Zimmermann, Charles, New York, N. Y. Hot-water urn	412,471	Oct. 22	2499	648	49	505
Zimmermann, Charles E., Syracuse, N. Y. Cutter-head for matching lumber	414,473	Nov. 5	452	114	49	232
Zincke, August, administrator. (See Bogusach, Gustav and R. J.)						
Zinna, Jennie A. (See Rosa, Albert, assignor.)						
Zlock, William, et al. (See Young, Charles H., assignor.)						
Zipernowsky, Charles, Buda-Pesth, Austria-Hungary. Alternating-current machine	412,608	Oct. 15	1806	471	49	364
Zipernowsky, Charles, Buda-Pesth, Austria-Hungary. Tramway with vertical tracks	413,991	Nov. 20	2794	731	49	1208
Zwick, George A., Covington, Ky. Composition for fuel	411,848	Oct. 1	114	.....	49	25

ALPHABETICAL LIST OF PATENTEES OF DESIGNS.

Name, residence, and design.	No.	Date.	Official Gazette.	
			Volume.	Page.
Adams, Arthur L. (See Thompson, Leroy L., assignor.)				
Adams, Peter. (See Shepard and Adams.)				
Adhesive Gimp Company. (See Salathe, Charles, assignor.)				
Alexander, James H., assignor to T. Devlin & Co., Philadelphia, Pa. Ceiling-plate	19,518	Dec. 24	49	1848
Allen, Samuel L., Cinnaminson, N. J. Cultivator-frame	19,367	Oct. 22	49	416
Allen, Samuel L., Cinnaminson, N. J. Cultivator-frame	19,449	Dec. 3	49	1368
Anderson, William C., assignor to W. L. Libbey & Son Company, Toledo, Ohio. Ornamentation of glassware	19,450	Dec. 3	49	1368
Andrews, Charles W. and F. H., assignors to Mallory Wheeler Company, New Haven, Conn. Ornamentation of builders' hardware	19,333	Dec. 31	49	1989
Andrews, Frank H. (See Andrews, Charles W. and F. H.)				
Arnold, Constable & Co. (See Batley, Henry W., assignor.)				
Backhausen, Johann, Vienna, Austria-Hungary, assignor to Mills & Gibb, New York, N. Y. Curtain or cover	19,451	Dec. 3	49	1368
Bailey, Pryce W., Seneca Falls, N. Y. Memorial cross	19,471	Dec. 10	49	1542
Barkentin, George S., assignor to P. & F. Corbin, New Britain, Conn. Latch-case	19,442	Nov. 26	49	1216
Barkentin, George S., assignor to P. & F. Corbin, New Britain, Conn. Hinge	19,444	Nov. 26	49	1216
Barkentin, George S., assignor to P. & F. Corbin, New Britain, Conn. Ornamentation of builders' hardware	19,545	Dec. 31	49	1989
Barnhart Brothers & Spindler. (See Do Witt and Tiede, assignors.)				
Barnhart Brothers & Spindler. (See Lanschke and Schmohl, assignors.)				
Bascom, Henry C., and T. S. Heister, Lansingburgh, assignors to Co-Operative Foundry Company, Rochester, N. Y. Heating-stove	19,483	Dec. 17	49	1698
Batley, Henry W., Wandsworth, county of Surrey, England, assignor to Arnold, Constable & Co., New York, N. Y. Rug	19,396	Nov. 5	49	738
Bawden, John, et al. (See Read, Joseph A., assignor.)				
Bawden, John H., et al. (See Read, Joseph A., assignor.)				
Beach, Edward P., Newark, N. J. Bracelet	19,376 to 19,378	Oct. 29	49	566
Beach, Edward P., Newark, N. J. Bracelet	19,472	Dec. 10	49	1542
Beeler, Charles H., Jr., Philadelphia, Pa. Font of printing-type	19,363	Oct. 22	49	416
Beeston, Henry W., Philadelphia, Pa. Umbrella-stand	19,408	Nov. 12	49	898
Beeston, Henry W., Philadelphia, Pa. Umbrella-stand	19,409	Nov. 12	49	898
Beeston, Henry W., Philadelphia, Pa. Umbrella-stand	19,429	Nov. 19	49	1050
Beier, John, Wheeling, W. Va. Plug-tobacco	19,452	Dec. 3	49	1368
Benedict, William K., assignor to Co-Operative Building Plan Association, New York, N. Y. Exterior of a dwelling-house	19,453	Dec. 3	49	1368
Benedict, William K., assignor to Co-Operative Building Plan Association, New York, N. Y. Exterior of a hotel	19,454	Dec. 3	49	1368
Benedict, William K., assignor to Co-Operative Building Plan Association, New York, N. Y. Exterior of a residence	19,484	Dec. 17	49	1698
Benedict, William K., assignor to Co-Operative Building Plan Association, New York, N. Y. Exterior of a residence	19,534 to 19,538	Dec. 31	49	1989
Benedict, William K., assignor to Co-Operative Building Plan Association, New York, N. Y. Exterior of a residence	19,546 to 19,549	Dec. 31	49	1990
Benedict, William K., assignor to Co-Operative Building Plan Association, New York, N. Y. Exterior of a casino	19,550	Dec. 31	49	1990
Benninger, Frederick, New York, N. Y., and H. E. Graham, Hoboken, N. J. Rule	19,379	Oct. 29	49	566
Bernhard, Frederick, New York, N. Y. Badge	19,430	Nov. 19	49	1050
Betteudorf, William F., Davenport, Iowa. Wheel-hub	19,431	Nov. 19	49	1050
Bigelow Carpet Company. (See Brown, William F., assignor.)				
Bigelow Carpet Company. (See Halliday, Arthur L., assignor.)				
Bigelow Carpet Company. (See McCallum, William, assignor.)				
Billing, Luther G., Washington, D. C. Cabinet for type-writers, &c.	19,410	Nov. 12	49	898
Blackmore, George C., Newark, N. J. Heating-boiler	19,455	Dec. 3	49	1368
Bliss, Charles C. (See Schwartzengraber and Bliss.)				
Bodley, Edwin J. D., Burslem, county of Stafford, England. Ewer	19,397	Nov. 5	49	738
Brigham, William T., Baltimore, Md. Hat-band	19,445	Nov. 26	49	1216
Bromley & Sons, John. (See Pegel, Julius, assignor.)				
Bromley & Sons, John. (See Petzold, Adolph, assignor.)				
Brossy, Frank E., and C. K. Friedman, Detroit, Mich. Pen-holder	19,456	Dec. 3	49	1368
Brown, William F., Brooklyn, N. Y., assignor to Bigelow Carpet Company, Clinton, Mass. Carpet	19,340 to 19,441	Oct. 8	49	134
Bryce Brothers. (See Smith, Henry J., assignor.)				
Back, Orlando J. (See Cox and Buck.)				
Brady, Joseph, San Francisco, Cal. Water-closet bowl or stand	19,540	Dec. 3	49	1989
Butler, Frederic S., San Francisco, Cal. Typographic vignette	19,342 to 19,373	Oct. 8	49	134
Cameron, Allan B., Williamsport, Pa. Ornamental panel	19,478 to 19,478	Dec. 10	49	1542
Campbell, James W., Germantown, assignor to Ferguson Brothers, New York, N. Y. Hook-rack	19,322	Oct. 1	49	2
Campbell, James W., Germantown, assignor to Ferguson Brothers, New York, N. Y. Hanger for toilet articles	19,485	Dec. 17	49	1698
Crabtree, William F., assignor to Marder, Luse & Co., Chicago, Ill. Font of printing-type	19,380	Oct. 29	49	566
Chesley, M. B. (See Debern, Jonathan B., assignor.)				
Christesen, Rudolph W. E., assignor to Russell & Erwin Manufacturing Company, New Britain, Conn. Door-lock case	19,393	Oct. 1	49	2

Alphabetical list of patentees of designs, October to December, inclusive—Continued.

Name, residence, and design.	No.	Date.	Vol.	Page.	Official Gazette.
Co-Operative Building Plan Association. (See Benedict, William K., assignor.)					
Co-Operative Building Plan Association. (See Gillespie, George C., assignor.)					
Co-Operative Building Plan Association. (See Lacroix, Antoine, Jr., assignor.)					
Co-Operative Building Plan Association. (See Morison, Augustus B., assignor.)					
Co-Operative Foundry Company. (See Bascom and Helster, assignors.)					
Colby, Harlan P., Grand Rapids, Mich. Horse-wagon body	19,381	Oct. 29	49	56	
Corn, Gilbert, et al. (See Reed, Joseph A., assignor.)					
Connor, William R., New York, N. Y. Brougham-body	19,352	Oct. 15	49	28	
Corbin, P. & F. (See Barkentin, George S., assignor.)					
Cox, Amariah G., and O. J. Buck, Chicago, Ill. Candy or sugar tongs	19,504	Dec. 17	49	184	
Crowell, Gilbert L., Jr., Arlington, N. J. assignor to Dominick & Haef, New York, N. Y. Back for hand-mirrors, etc.	19,411	Nov. 12	49	89	
Daniels, William P., Cedar Rapids, Iowa. Badge	19,466	Dec. 17	49	169	
Dankel, Josef, Vienna, Austria-Hungary, assignor to Mills & Gibb, New York, N. Y. Curtain or cover					
Davis, Charles A., Washington, D. C. Oar or paddle	19,519	Dec. 31	49	124	
Davis, Charles A., Washington, D. C. Gunstock	19,520	Dec. 31	49	124	
Davis, Charles A., Washington, D. C. Umbrella-handle	19,521	Dec. 31	49	124	
Davis, Charles A., Washington, D. C. Hit or handle of sword.	19,522	Dec. 31	49	184	
De Witt, Henry W., and C. E. Eide, assignors to Barnhart Brothers & Spindler, Chicago, Ill. Font of printing-type	19,364	Oct. 22	49	41	
Devlin & Co., Thomas. (See Alexander, James A., assignor.)					
Dominick & Haef. (See Crowell, Gilbert L., Jr., assignor.)					
Donahue, Bernard, Yonkers, N. Y. Insertible jaw for wrenches	19,412	Nov. 12	49	89	
Draper, Abigail A., Blue Island, Ill. Label	19,368	Oct. 22	49	41	
Dungan, Elvin B., and J. G. Ramsdell, Philadelphia, Pa. Piano-stool	19,325	Oct. 1	49	1	
Dwyer, James, Detroit, Mich. Cooking-stove	19,336	Oct. 1	49	1	
Dwyer, James, Detroit, Mich. Heating-stove	19,353	Oct. 15	49	28	
Dwyer, James, Detroit, Mich. Cooking-stove	19,413	Nov. 12	49	89	
Dwyer, James, Detroit, Mich. Heating-stove	19,414	Nov. 12	49	89	
Dwyer, James, Detroit, Mich. Cooking-stove	19,415	Nov. 12	49	89	
Dwyer, James, Detroit, Mich. Heating-stove	19,416	Nov. 12	49	89	
Estes, Webster C., Flatbush, N. Y. Box	19,417	Nov. 12	49	89	
Estes, Webster C., Flatbush, N. Y. Box	19,418	Nov. 12	49	89	
Ferguson Brothers. (See Campbell, James W., assignor.)					
Fowler, Chalkley T., Chillicothe, Ohio. Hat and coat rack	19,432	Dec. 3	49	103	
Frank, Jacob M., Philadelphia, Pa. Cap	19,354	Oct. 15	49	28	
Friedman, Isaac, New York, N. Y. Belt-hanger	19,343	Oct. 8	49	13	
Friedman, Carl K. (See Brosey and Friedman.)					
Gehauer, Henry W., and W. H. Johnson, assignors to Perkins Lock Manufacturing Company, Cleveland, Ohio. Lock-trimming	19,505	Dec. 17	49	169	
Geddes, George, Fair Mount, assignor to C. G. Thyng, Olean, N. Y. Shafts for two-wheeled vehicles	19,523	Dec. 24	49	184	
Giesecke, George F., Leipzig, Saxony, Germany. Font of type	19,419	Nov. 12	49	89	
Giesecke, George F., Leipzig, Saxony, Germany. Font of initial letters	19,420	Nov. 12	49	89	
Giesecke, George C., Brooklyn, assignor to Co-Operative Building Plan Association, New York, N. Y.	19,446	Nov. 20	49	121	
Gleason, Warren C., Chicago, Ill. Business card or envelope	19,551	Dec. 31	49	199	
Goelet, Augustin H., New York, N. Y. Speculum	19,433	Nov. 19	49	103	
Gorchs, Cefeferio, Barcelona, Spain. Font of type	19,398	Nov. 5	49	7	
Graham, H. B., et al. (See Bennett and Graham.)	19,524	Dec. 21	49	184	
Hackl, Heinrich, Vienna, Austria-Hungary, assignor to Mills & Gibb, New York, N. Y. Curtain or cover	19,330	Oct. 1	49	1	
Hafely, Alfred C. (See Hafely, Marie and A. C.)	19,331	Oct. 1	49	1	
Hafely, Marie and A. C., assignors to Koch, Sons & Company, New York, N. Y. Book or album	19,487	Dec. 17	49	169	
Halliday, Arthur L., Brooklyn, N. Y., assignor to Bigelow Carpet Company, Clinton, Mass. Carpet	19,344	Oct. 8	49	13	
Harder, Charles N. (See Sagenador, Longley L., assignor.)					
Hathaway, Edgar F. (See Hathaway and Woodard.)					
Hathaway, William E. and E. F., and A. B. Woodard, Hornellville, N. Y. Fencing-strand	19,434	Nov. 19	49	103	
Helster, Tobias S. (See Bascom and Helster.)					
Hensel, John, Hoboken, N. J. Chasteline-bag	19,479	Dec. 10	49	154	
Hensel, Colladay Company. (See Hensel, George S., assignor.)					
Hensel, George S., Philadelphia, Pa., assignor to Hensel Colladay Company, of Pennsylvania. Upholstery or shade trimmings	19,421	Nov. 12	49	89	
Hensel, George S., Philadelphia, Pa., assignor to Hensel Colladay Company, of Pennsylvania. Upholstery or shade trimmings	19,422	Nov. 12	49	89	
Hensel, George S., Philadelphia, Pa., assignor to Hensel Colladay Company, of Pennsylvania. Upholstery or shade trimmings	19,423	Nov. 12	49	89	
Hensel, George S., Philadelphia, Pa., assignor to Hensel Colladay Company, of Pennsylvania. Upholstery or shade trimmings	19,424	Nov. 12	49	89	
Howard, Andrew, Pittsburg, Pa. Lamp or gas shade	19,328	Oct. 1	49	1	
Koch, John C., Berlin, Germany. Book or album	19,329	Oct. 1	49	1	
Jackson, Austin F., assignor to Kern & Barton Corporation, Taunton, Mass. Spoon	19,498	Dec. 17	49	169	
Jackson, William W., assignor to MacKellar, Smiths & Jordan Company, Philadelphia, Pa. Font of printing-type	19,355	Oct. 15	49	28	
Jewett & Co., Sherman, N. Y. (See Walther, Charles F., assignor.)					
Johnson, Robert L., East Orange, N. J. Dish	19,425	Nov. 12	49	89	
Johnson, William H. (See Gehaner and Johnson.)					
Judson Pneumatic Street Railway Company. (See Judson, Whitcomb L., assignor.)					
Judson, Whitcomb L., assignor to Judson Pneumatic Street Railway Company, New York, N. Y.					
Kagelmacher, Charles, Cleveland, Ohio. Burial-casket	19,437	Nov. 19	49	103	
Kerr, Joseph P., San Jacinto, Cal. End-stick for locking up type	19,506	Dec. 17	49	169	
King, Henry C., Harrison, Ark. Slate-frame	19,332	Oct. 1	49	1	
Koch, John C., Berlin, Germany. Book or album	19,345	Oct. 8	49	13	
Koch, Sons & Company. (See Hafely, Marie and A. C., assignors.)	19,525	Dec. 24	49	184	
Koch, Sons & Company. (See Petri, John A., assignor.)					
La Pierre, Frank A., New York, N. Y. Bracelet	19,530	Dec. 24	49	184	
Lacroix, Antoine, Jr., Brooklyn, N. Y. Kitchen or country house	19,374	Oct. 22	49	41	
Lacroix, Antoine, Jr., Brooklyn, assignor to Co-Operative Building Plan Association, New York, N. Y. Exterior of a stable	19,369	Oct. 22	49	41	

Alphabetical list of patentees of designs, October to December, inclusive—Continued.

Name, residence, and design.	No.	Date.	Official Gazette.	
			Vol.	Page.
Lacroix, Antoine, Jr., Brooklyn, assignor to Co-Operative Building Plan Association, New York, N. Y. Exterior of a country house.....	{ 19,370 to 19,373 }	Oct. 22	49	416
Lacroix, Antoine, Jr., Brooklyn, assignor to Co-Operative Building Plan Association, New York, N. Y. Front of a store building.....	19,459	Dec. 17	49	1608
Lacroix, Antoine, Jr., Brooklyn, assignor to Co-Operative Building Plan Association, New York, N. Y. Exterior of a country house.....	19,490	Dec. 17	49	1608
Lauschke, Ernst, and J. Schmohl, assignors to Barnhart Brothers & Spindler, Chicago, Ill. Foot of printing type.....	19,346	Oct. 8	49	134
Lawson, James, Bellairs, Ohio. Caster.....	19,438	Nov. 19	49	1650
Libbey & Son Company, W. L. (See Anderson, William C., assignor.)				
Libbey & Son Company, W. L. (See Locke, Joseph, assignor.)				
Lightning Check Punch Company, (See Williamson, Samuel S., assignor.)				
Locke, Joseph, assignor to W. L. Libbey & Son Company, Toledo, Ohio. Ornamentation of glass-ware.....	19,347	Oct. 8	49	134
Locke, Joseph, assignor to W. L. Libbey & Son Company, Toledo, Ohio. Condiment-holder.....	19,460	Dec. 3	49	1368
Locke, Joseph, assignor to W. L. Libbey & Son Company, Toledo, Ohio. Napkin-ring.....	19,461	Dec. 3	49	1368
Locke, Joseph, assignor to W. L. Libbey & Son Company, Toledo, Ohio. Condiment-holder.....	19,462	Dec. 3	49	1368
Lynch, Eliza J., New York, N. Y. Child's bonnet.....	19,494	Nov. 12	49	598
MacKellar, Smiths & Jordan Company, (See Jackson, William W., assignor.)				
Mallory Wheeler Company, (See Andrews, Charles W. and F. H.)				
Marchetti, Giulio, Halifax, county of York, England, assignor to J. Crossley & Sons, New York, N. Y., and London, England. Rug.....	19,333	Oct. 1	49	2
Marder, Luse & Co. (See Captain, William F., assignor.)				
Marder, Luse & Co. (See West, John, assignor.)				
Manser, Frank, North Attleborough, Mass. Back of a brush.....	19,334	Oct. 1	49	2
McCallum, William, Yonkers, N. Y., assignor to Bigelow Carpet Company, Clinton, Mass. Carpet.....	19,348	Oct. 8	49	134
Meyer, Charles T. and V. E., Bergen, N. J., assignors to E. C. Sampson, New York, N. Y. Oil-cloth.....	{ 19,382 to 19,390 }	Oct. 29	49	568
Meyer, Charles T. and V. E., Bergen, N. J., assignors to E. C. Sampson, New York, N. Y. Oil-cloth.....	{ 19,507 to 19,514 }	Dec. 17	49	1608
Meyer, Julius S., New York, N. Y. Carpet.....	{ 19,399 to 19,402 }	Nov. 5	49	738
Meyer, Victor E. (See Meyer, Charles T. and V. E.)				
Mills & Gibb. (See Backhausen, Johann, assignor.)				
Mills & Gibb. (See Dacheck, Josef, assignor.)				
Mills & Gibb. (See Hackl, Heinrich, assignor.)				
Morison, Augustus B., Jersey City, N. J., assignor to Co-Operative Building Plan Association, New York, N. Y. Exterior of a country house.....	19,491	Dec. 17	49	1608
Noble, Howard C., New Britain, Conn. Clasp-buckle.....	{ 19,447 to 19,448 }	Nov. 26	49	1216
Noyes & Co., Joseph P. (See Noyes, Joseph P., assignor.)				
Noyes, Joseph P., assignor to J. P. Noyes & Co., Binghamton, N. Y. Comb.....	19,365	Oct. 22	49	416
Osborne, Jonathan H., assignor to M. B. Chesley, Amesbury, Mass. Vehicle-body.....	19,425	Nov. 12	49	898
Palmer, Noyes F., Brooklyn, N. Y. Fountain pen nozzle.....	19,349	Oct. 8	49	134
Palmer, Stephen, Lansingburg, N. Y. Wreeling-hook.....	19,489	Dec. 10	49	1342
Parker, William, Brooklyn, N. Y. Watch-case.....	19,526	Dec. 24	49	1818
Pegel, Julius, Philadelphia, Pa. Rug.....	{ 19,492 to 19,495 }	Dec. 17	49	1608
Pegel, Julius, assignor to J. Bromley & Sons, Philadelphia, Pa. Rug.....	19,391	Oct. 29	49	568
Pegel, Julius, assignor to J. Bromley & Sons, Philadelphia, Pa. Rug.....	{ 19,463 to 19,465 }	Dec. 3	49	1368
Perkins Lock Manufacturing Company, (See Gebauer and Johnson.)				
Petri, John A., Brooklyn, assignor to Koch Sons & Company, New York, N. Y. Book or album.....	{ 19,527 to 19,528 }	Dec. 24	49	1848
Petzold, Adolph, assignor to J. Bromley & Sons, Philadelphia, Pa. Rug.....	19,335	Oct. 1	49	2
Petzold, Adolph, assignor to J. Bromley & Sons, Philadelphia, Pa. Rug.....	{ 19,336 to 19,392 }	Oct. 29	49	568
Pfium, Harry P. (See Resor and Pfium.)				
Phelps, George H., West Newton, Mass. Stocking-supporter.....	19,515	Dec. 17	49	1088
Pilkington Brothers, (See Pilkington, William L., assignor.)				
Pilkington, William L., assignor to Pilkington Brothers, St. Helens, county of Lancaster, England. Ornamentation of glass.....	19,552	Dec. 31	49	1900
Poole, Edward, Philadelphia, Pa. Carpet.....	19,496	Dec. 17	49	1088
Prétat, Frederick E., assignor to Rogers & Hamilton Company, Waterbury, Conn. Spoon-handle.....	19,337	Oct. 1	49	2
Ramsdell, James G. (See Dungan and Ramsdell.)				
Read, Joseph A., assignor to G. Combs, J. and J. H. Bawden, Philadelphia, Pa. Fire-place lining.....	19,439	Nov. 19	49	1050
Reddie, Archie E., Philadelphia, Pa. Carpet.....	19,463	Nov. 5	49	738
Reed & Barton Corporation, (See Jackson, Austin F., assignor.)				
Reichard, Theophilus, Brooklyn, N. Y. Tower.....	19,466	Dec. 3	49	1368
Remlinger, John L., Providence, R. I. Jewel-holder.....	19,375	Oct. 22	49	416
Requa, Emma M., New York, N. Y. Badge.....	19,438	Nov. 12	49	598
Resor & Co., William. (See Resor and Pfium, assignors.)				
Resor, Isaac B., and H. P. Pfium, assignors to W. Resor & Co., Cincinnati, Ohio. Heating-stove.....	19,467	Dec. 3	49	1368
Rogers & Hamilton Company, (See Dungan and Ramsdell.)				
Rogers, William, Hartford, Conn. Spoon, &c.....	19,468	Dec. 3	49	1368
Russell & Erwin Manufacturing Company, (See Christensen, Rudolph W. E., assignor.)				
Sagendorph, Longley L., Cincinnati, Ohio, assignor of one-half to C. N. Harder, Philmont, N. Y. Mullie finishing-plate.....	19,338	Oct. 1	49	2
Salathe, Charles, assignor to Adhesive Gimp Company, (limited), New York, N. Y. Gimp.....	19,331	Dec. 24	49	1848
Sampson, Edward C. (See Meyer, Charles T. and V. E., assignors.)				
Sanders, Louis, Brooklyn, N. Y. Belt-buckle.....	{ 19,358 to 19,359 }	Oct. 15	49	286
Sanders, Louis, Brooklyn, N. Y. Belt.....	19,360	Oct. 15	49	286
Sawyer, George C., Canton, N. Y. Jar.....	19,516	Dec. 17	49	1608
Schmohl, Julius. (See Lauschke and Schmohl.)				
Schroeder, William, Kendallville, Ind. Broom-holder.....	19,517	Dec. 17	49	1608

Alphabetical list of patentees of designs, October to December, inclusive—Continued.

Name, residence, and design.	No.	Date.	Official Gazette.	
			Vol.	Page.
Schwartzengraber, Henry B., and C. C. Bliss, Delphos, Ohio. Wire-fence block	19,482	Dec. 10	49	1542
Shepard, Charles G., and P. Adams; said Adams assignor to W. J. Shepard, Buffalo, N. Y. Toy savings-bank	19,356	Oct. 15	49	286
Shepard, Charles G., and P. Adams; said Adams assignor to W. J. Shepard, Buffalo, N. Y. Tea and coffee pot handle	19,361	Oct. 15	49	286
Shepard, Walter J. (See Shepard and Adams, assignors.)				
Shiebler, George W., Brooklyn, N. Y. Handle for spoons, &c	{ 19,497 to 19,503 }	Dec. 17	49	1698
Simons Bros. & Co. (See Weihman, Henry A., assignor.)				
Smith, Henry J., assignor to Bryce Brothers, Pittsburg, Pa. Table-ware	19,427	Nov. 12	49	898
Starr, Eli T., assignor to S. S. White Dental Manufacturing Company, Philadelphia, Pa. Gum for artificial teeth	19,362	Oct. 15	49	286
Starr, Walter L., Newark, N. J. Belt-clasp	19,428	Nov. 12	49	898
Steffin, Albert, New Bedford, Mass. Salt-cellar, &c	19,539	Dec. 31	49	1989
Stein, Leo, Rochester, N. Y. Burial-casket lid	19,469	Dec. 3	49	1368
Stites, Harry, Harrisburg, Pa. Badge	19,350	Oct. 8	49	134
Stone, Clair D., Chicago, Ill. Button	19,481	Dec. 10	49	1542
Thompson, Leroy L., Haverhill, assignor to A. L. Adams, Leominster, Mass. Ink-eraser	19,440	Nov. 19	49	1050
Thyng, Oliver G. (See Geddes, George, assignor.)				
Tiede, Charles E. (See De Witt and Tiede.)				
Townsend, Harrison. (See Wilson, William G., assignor.)				
Urstadt, George, New York, N. Y. Carpet	{ 19,404 }	Nov. 5	49	738
Walker, David, Newark, N. J. Stair-carpet button	{ 19,405 }			
Walter, William G., Pittsburg, Pa. Bottle	19,365	Oct. 22	49	416
Walther, Charles F., assignor to S. S. Jewett & Co., Buffalo, N. Y. Cooking-stove	19,357	Oct. 15	49	286
Walther, Charles F., assignor to S. S. Jewett & Co., Buffalo, N. Y. Heating-stove	19,394	Oct. 29	49	566
Watson, Jacob, Yonkers, N. Y., assignor to M. J. Whittall, Worcester, Mass. Rug	19,541	Dec. 31	49	1989
Watts, David H., Philadelphia, Pa. Tile	19,542	Dec. 31	49	1989
Wehn, Joseph, Beaver, Pa. Lamp or gas shade	19,441	Nov. 19	49	1050
Weihman, Henry A., assignor to Simons Bros. & Co., Philadelphia, Pa. Thimble	19,395	Oct. 29	49	566
West, John, assignor to Marder, Luse & Co., Chicago, Ill. Font of printing-type	19,470	Dec. 3	49	1368
Whildin, John G., Philadelphia, Pa. Flower-pot	19,351	Oct. 8	49	134
Whildin, John G., assignor to Whildin Pottery Company, Philadelphia, Pa. Flower-pot	19,406	Nov. 5	49	738
Whildin Pottery Company. (See Whildin, John G., assignor.)				
White Dental Manufacturing Company, S. S. (See Starr, Eli T., assignor.)				
Whittall, M. J. (See Watson, Jacob, assignor.)				
Williamson, Samuel S., assignor to Lightning Check Punch Company, Bridgeport, Conn. Check- punch case	19,532	Dec. 24	49	1848
Wilson, William G., Norristown, assignor to H. Townsend, Philadelphia, Pa. Rug	19,407	Nov. 5	49	738
Wilson, William G., Norristown, assignor to H. Townsend, Philadelphia, Pa. Rug	{ 19,543 to 19,544 }	Dec. 31	49	1989
Woodard, Alonzo B. (See Hathaway and Woodard.)				

ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

Name, residence, and title.	No.	Date.	Volume.	Page.	Official Gazette.
Ahhott, Leonard G., Boston, Mass. Metallic rings for the cure of rheumatism and the like	17,101	Oct. 15	49	296	
Actien-Gesellschaft für Anilin Fabrikation, Berlin, Germany. Chemical substances and preparations used in photography	17,273	Dec. 17	49	1698	
Aerated Oxygen Co., Nashua, N. H. Medical compound to be used as an inhalant	17,084	Oct. 8	49	134	
Alderman, Sidney S., and J. B. Roberts, Iowa, Ia. Honey	17,374	Dec. 17	49	1698	
Alif Chemical Company, Chas., St. Louis, Mo. Medicines for the prevention and cure of microbe diseases	17,134	Oct. 22	49	416	
Allen & Sons, Joseph, Sheffield, county of York, England. Cutlery and edge and other tools	17,180	Nov. 5	49	738	
Allman & Co., Bandon, county of Cork, Ireland. Whisky	17,212	Nov. 26	49	1216	
Altman, Benjamin, New York, N. Y. Gloves	17,194	Nov. 19	49	1050	
American Waltham Watch Company, Waltham, Mass. Watch-movements	17,105	Oct. 15	49	296	
Anderson, Frederick W., Worcester, Mass. Stove-polish	17,247	Dec. 10	49	1542	
Anthony & Company, E. & H. T., New York, N. Y. Paper of all kinds excepting photographic paper	17,300	Dec. 24	49	1848	
Arnold & Heidelberger, Chas., Rheims, France. Champagne-wine	17,144	Oct. 29	49	566	
Arnold & Heidelberger, Chas., Rheims, France. Champagne-wine	17,145	Oct. 29	49	566	
Atkins & Company, E. C., Indianapolis Ind. Saws	17,275	Dec. 17	49	1698	
Bailey, George P., New Bedford, Mass. Lue of medicinal compounds	17,170	Nov. 5	49	738	
Baird, William C., New York, N. Y. Table-salt	17,096	Oct. 15	49	296	
Ballard & Co., Stephen, New York, N. Y. Rubber belting	17,301	Dec. 24	49	1848	
Ballard & Co., Stephen, New York, N. Y. Rubber belting, rubber hose, and rubber packing	17,302	Dec. 24	49	1848	
Ballard & Co., Stephen, New York, N. Y. Rubber hose	17,303	Dec. 24	49	1848	
Balsan Frères, New York, N. Y. Gloves of kid and other skins	17,323	Dec. 31	49	1990	
Barnard & Company, Geo. D., East St. Louis, Ill., and St. Louis, Mo. Ledger-paper for blank books	17,093	Oct. 8	49	134	
Barnes, Ralph G., Syracuse, N. Y. Cigars	17,113	Oct. 15	49	296	
Barzana, Jacinto, New Orleans, La. Cigars	17,276	Dec. 17	49	1698	
Baxter, Hartley C., Brunswick, Me. Canned corn, beans, and succotash	17,189	Nov. 12	49	898	
Baxter, Hartley C., Brunswick, Me. Canned vegetables, fruits, fish, oysters, and meats	17,185	Nov. 12	49	898	
Baxter, Hartley C., Brunswick, Me. Canned vegetables, fruits, fish, oysters, and meats	17,195	Nov. 19	49	1050	
Bear & Larch & Co., Danbury, Conn. Hat	17,227	Dec. 17	49	1698	
Benge & Co., E., Philadelphia, Pa. Bakers' productions	17,192	Nov. 19	49	1050	
Berninger Bros., Coopersburg, Pa. Cigars	17,277	Dec. 17	49	1698	
Boston Chemical Company, Boston, Mass. Disinfectants	17,213	Nov. 26	49	1216	
Boston Woven Hose Company, Boston, Mass. Belts for machinery and hose for conducting water	17,143	Oct. 29	49	566	
Bowen, George H., Chicago, Ill. Boots, shoes, and rubbers	17,161	Nov. 5	49	738	
Brigonet, Charles P., and E. A. Naville, St. Denis, France. Anesthetics	17,085	Oct. 8	49	134	
Branson Supply Company, Cleveland, Ohio. Kitchen and household articles of sheet-steel	17,154	Oct. 29	49	566	
Brook Haven Rubber Shoe Company, Setauket, N. Y. Foot-wear made wholly or partly of leather	17,324	Dec. 31	49	1990	
Brooklyn Purified Mineral Water Co., Brooklyn, N. Y. Mineral water	17,214	Nov. 26	49	1216	
Bryant & Brett, New Bedford, Mass. Washing-powder	17,228	Dec. 3	49	1368	
Bundy, Frank E., Elmira, N. Y. Baking powder	17,229	Dec. 3	49	1368	
Butler & Co., James G., St. Louis, Mo. Smoking and chewing tobacco, cigars, and cigarettes	17,294	Dec. 17	49	1698	
Cameron, Ella V., New York, N. Y. Certain named medical preparations	17,214	Nov. 26	49	1216	
Carter, Dinsmore & Co., Boston, Mass., and New York, N. Y. Laundry-bluing	17,278	Dec. 17	49	1698	
Cartier-Bresson, Les Fils de, Paris, France. Cotton thread	17,162	Nov. 5	49	738	
Cazanove, Jean P. F., Bordeaux, France. Liquor	17,086	Oct. 8	49	134	
Cazanove, Jean P. F., Bordeaux, France. Liquor	17,087	Oct. 8	49	134	
Chaffee & Athens, New Orleans, La. Shingles and sawed lumber	17,195	Nov. 12	49	898	
Chapman & Smith Company, Chicago, Ill. Chicago yeast-powder	17,177	Nov. 5	49	738	
Chapman & Smith Company, Chicago, Ill. Flavoring-extracts	17,295	Dec. 17	49	1698	
Chemische Fabrik Auf Actien, (vormals E. Schering), Berlin, Germany. Chemical compounds derived from chloral	17,325	Dec. 31	49	1990	
Chichester Chemical Company, Philadelphia, Pa. Emmenagogue	17,114	Oct. 15	49	296	
Chomet & Co., A., Paris, France. Dentifrices	17,163	Nov. 5	49	738	
Chapp & Co., A. W., Boston, Mass. Women's, misses', and children's, and boys' and youths' school-books	17,304	Dec. 24	49	1848	
Clark & Co., George, New York, N. Y. Whisky	17,361	Dec. 10	49	1542	
Cleveland, William M., Savannah, Ga. Headache medicine	17,164	Nov. 5	49	738	
Cleworthly, William P., Baltimore, Md. Composition produced from fruits and vegetables for dessert purposes	17,230	Dec. 3	49	1368	
Collin, James C., Syracuse, N. Y. Puzzles	17,115	Oct. 15	49	296	
Columbia Refining Co., New York, N. Y. Machinery grease, lubricating, wool, and other oils	17,248	Dec. 10	49	1542	
Condy & Mitchell, (limited), London, England. Disinfectant	17,326	Dec. 31	49	1990	
Connelley & Co., Baltimore, Md. Medicines for the cure of diseases of the throat and lungs and air-passages	17,331	Dec. 3	49	1368	
Cook, Charles C., Baltimore, Md. Congh remedies, pills, liniments, salves, and plasters	17,232	Dec. 3	49	1368	
Cook, Irene D., Kansas City, Mo. Tonic for the complexion	17,197	Nov. 19	49	1050	
Daly & Hardinburg, Kingston, N. Y. Balm or salve for rough skin	17,327	Dec. 31	49	1990	
Courson, George H., Baltimore, Md. Oil-cans for filling lamps	17,210	Nov. 26	49	1216	
Coursen, George H., Baltimore, Md. Pencil-sharpeners and razor-strops	17,217	Nov. 26	49	1216	
Cox, Palmer, New York, N. Y. Sets or series of picture-blocks	17,255	Dec. 10	49	1542	
Creasiger & Co., Los Angeles, Cal. Vegetable medicinal compounds in liquid or solid form	17,198	Nov. 19	49	1050	
Crocker & Co., H. S., San Francisco, Cal. Note-paper	17,312	Nov. 26	49	1216	
Crystal Spring Brewing Company, Syracuse, N. Y. Beer, ales, and lager	17,137	Oct. 22	49	416	
Cunningham, John T., Boston, Mass. Rubber and oil clothing	17,305	Dec. 24	49	1848	
Dallas Machine Manufacturing Company, Dallas, Tex. Medicines for purifying the blood	17,338	Dec. 31	49	1990	
Daly, Belle C., Philadelphia, Pa. Packed butter, lard, lean-margarine, tallow, and grease	17,072	Oct. 1	49	2	
Dalsimer, Eva, Philadelphia, Pa. Shoes	17,097	Oct. 22	49	416	
Davies Griffith R., Aquashicola, Pa. Roofing-slate	17,219	Nov. 26	49	1216	
Diffie, Francis, Homer, La. Detergent	17,206	Dec. 24	49	1848	
Dunlop & Co., Wm., New York, N. Y. Mittens and knit fabrics of all kinds	17,073	Oct. 1	49	2	
Dungan & Hudson, Rochester, N. Y. Rubber boots and shoes	17,279	Dec. 17	49	1698	

Alphabetical list of registrants of trade-marks, October to December, inclusive—Continued.

Name, residence, and title.	No.	Date.	Vol.	Page.	Official Gazette.
Durkee & Co., E. R., New York, N. Y. Spices, cream of tartar, saleratus, and bicarbonate of soda.	17,329	Dec. 31	49	1990	
Durkee & Co., E. R., New York, N. Y. Spices, cream of tartar, saleratus, and bicarbonate of soda.	17,330	Dec. 31	49	1990	
Durkee & Co., E. R., New York, N. Y. Spices for seasoning meats, &c.	17,331	Dec. 31	49	1990	
Durkee & Co., E. R., New York, N. Y. Spices, cream of tartar, saleratus, and bicarbonate of soda.	17,332	Dec. 31	49	1990	
Durkee & Co., E. R., New York, N. Y. Food made from wheat.	17,333	Dec. 31	49	1990	
Dyer, Isaac T., Chicago, Ill. Cigars.	17,334	Dec. 31	49	1990	
Eagle Roller Mill Co., New Ulm, Minn. Wheat-flour.	17,335	Dec. 31	49	1990	
Eagle Roller Mill Co., New Ulm, Minn. Wheat-flour.	17,336	Dec. 31	49	1990	
Eagle Roller Mill Co., New Ulm, Minn. Wheat-flour.	17,337	Dec. 31	49	1990	
Eagle Roller Mill Co., New Ulm, Minn. Wheat-flour.	17,338	Dec. 31	49	1990	
East River Chemical Works, Long Island City, N. Y. Malaria cure and pills.	17,346	Dec. 3	49	1990	
Emery, Francis F., Boston and Plymouth, Mass. Shoes and boots.	17,339	Dec. 31	49	1990	
Eureka Fire Hose Company, New York, N. Y. Linen hydraulic hose.	17,107	Oct. 15	49	286	
Ewbank, Herbert B., Atlanta, Ga. Cinchona-cordial, blood-specific, liver-pills, and ointment.	17,155	Oct. 29	49	286	
Faunce & Spinney, Lynn, Mass. Boots and shoes for women, misses, and children.	17,380	Dec. 17	49	1698	
Field, George C., Brooklyn, N. Y. Linseed-oils.	17,349	Dec. 10	49	1542	
Fobes, Hayward & Company, Boston, Mass. Chocolate confections.	17,068	Oct. 15	49	286	
Fobes, Hayward & Company, Boston, Mass. Lozenges.	17,069	Oct. 15	49	286	
Fournier, Engèle, Issy, Seine, France. Remedy for neuralgia.	17,094	Oct. 8	49	134	
Freeman & Co., E. E., Norfolk, Va. Superphosphates and guano fertilizer.	17,307	Dec. 24	49	1848	
Friedman, Alexander, Dedanoe, Ohio. Cigars.	17,341	Dec. 31	49	1990	
Gardner, Robert W., New York, N. Y. Perfumes.	17,303	Dec. 10	49	1542	
Gautier Frères, Aigre, France. Cognac brandy.	17,108	Oct. 15	49	286	
Gautier Frères, Aigre, France. Cognac brandy.	17,109	Oct. 15	49	286	
Geise & Co., Contra, Chattanooga, Tenn. Lager beer.	17,126	Oct. 22	49	416	
Genesee Salt Company, New York, N. Y. Salt.	17,136	Dec. 17	49	1698	
Georgia Soap Co., Atlanta, Ga. Soap.	17,296	Dec. 17	49	1698	
Gillet & Co., Martin, Baltimore, Md. Tea in packages.	17,199	Nov. 19	49	1050	
Gleason, Warren C. and J. Ryan, Chicago, Ill. Fire-hose.	17,308	Dec. 24	49	1848	
Good Luck Liniment Company, Sabatha, Kans. Poison for animals and vermin.	17,116	Dec. 3	49	1308	
Good Luck Liniment Company, Sabatha, Kans. Liniment.	17,324	Dec. 3	49	1308	
Graves, Arthur G., Boston, Mass. Liquids, powders, or paste for destroying insects.	17,083	Oct. 8	49	134	
Guntton & Curtis, Philadelphia, Pa. Herb tea.	17,137	Oct. 22	49	416	
Hammerslough Brothers, New York, N. Y. Coats, overcoats, jackets, and wraps for male and female wear.	17,309	Dec. 24	49	1848	
Hanes & Co., P. H., Winston, N. C. Plug-chewing-tobacco, smoking-tobacco, cigars, and cigarettes.	17,105	Nov. 5	49	738	
Harding Manufacturing Company, J. M., New York, N. Y. Medical compound for the treatment of catarrh and hay-fever.	17,074	Oct. 1	49	2	
Hargadine, McKittick & Co., St. Louis, Mo. White shirts.	17,310	Dec. 24	49	1848	
Hargadine, McKittick & Co., St. Louis, Mo. White shirts.	17,311	Dec. 24	49	1848	
Hargadine, McKittick & Co., St. Louis, Mo. White shirts.	17,312	Dec. 24	49	1848	
Hartford Hovel Plate Company, Hartford, Conn. Wearing-plates for boots and shoes.	17,156	Oct. 29	49	506	
Hartmann, August C., New York, N. Y. Gloves.	17,116	Dec. 15	49	286	
Haynes, Pillsbury & Co., Bangor, Me. Axes.	17,287	Dec. 17	49	1698	
Hazelton Boiler Company, New York, N. Y. Water-tube vertical boilers.	17,130	Oct. 22	49	416	
Hazelton Boiler Company, New York, N. Y. Water-tube vertical boilers.	17,121	Oct. 22	49	416	
Hazelton Boiler Company, New York, N. Y. Water-tube vertical boilers.	17,122	Oct. 22	49	416	
Heisel, Charles T., Cleveland, Ohio. Chewing-gum.	17,069	Oct. 8	49	134	
Heisel, Charles T., Cleveland, Ohio. Chewing-gum.	17,146	Oct. 29	49	566	
Heiser & Meier Company, New York, N. Y. Laundry-lin.	17,187	Nov. 12	49	898	
Herbert & Rapp Company, Brooklyn and Boston, Mass. Shoe-elastic.	17,261	Dec. 17	49	1698	
Herkner, Henry F., New York, N. Y. Fire-hose of circular-knit fabric.	17,290	Nov. 26	49	1216	
Hernandez, Diez, Jerez de la Frontera, Spain. Sherry wine.	17,178	Nov. 5	49	738	
Hernauert, Louis, Chemnitz, Saxony, Germany. Knit-woolen, silk, and cotton fabrics.	17,075	Oct. 1	49	2	
Hersom, Thomas, New Bedford, Mass. Granulated soap.	17,076	Oct. 1	49	2	
Herting & Sanger, Chicago, Ill. Beer.	17,342	Dec. 31	49	1990	
Hewlett & Son, C. J., London, England. Preparations entitled Liq. Santal Flav. e Buchu et	17,110	Oct. 15	49	286	
Cubcha and Mist. Peppine Co. e Bismuth.	17,111	Oct. 15	49	286	
Hilton, Hughes & Denning, New York, N. Y., and Paris, France. Certain named wool dress-goods.	17,123	Oct. 22	49	416	
Hilton, Hughes & Denning, New York, N. Y., and Paris, France. Cashmere shawls.	17,343	Dec. 31	49	1990	
Hoffman, George W., Indianapolis, Ind. Compound for polishing metals, wood, glass, &c.	17,313	Dec. 24	49	1848	
Hornor, James, Pittsburgh, Pa. Antiseptic coloring compound for meats.	17,344	Dec. 31	49	1990	
Horze, William L., Wallingford, Conn. Alcoholic and fermented beverages.	17,221	Nov. 26	49	1216	
Hudnut, Richard, New York, N. Y. Pills.	17,323	Dec. 3	49	1308	
Hughes, Henry D., J. Hunt, and Nolen, Philadelphia, Pa. Dyspepsia remedies.	17,250	Dec. 10	49	1542	
Hunt, Joshua, (See Hugh Hunt, Nolen.)					
Hurlbut Manufacturing Company, Racine Junction, Wis. Wagon-brake locks.	17,314	Dec. 24	49	1848	
Hyler's, New York, N. Y. Chocolate and chocolate preparations.	17,077	Oct. 1	49	2	
Hyde & Sons, A. G., New York, N. Y. Cotton linings.	17,282	Dec. 17	49	1698	
Ilies, Henry F., Battersea, county of Surrey, England. Foods and relishes, such as fruits and vegetables.	17,198	Oct. 22	49	416	
Ilies, Henry F., Battersea, county of Surrey, England. Medicated foods and medicinal tonics.	17,199	Oct. 22	49	416	
Ilies, Henry F., Battersea, county of Surrey, England. Malt liquors, coffee, tea, and cocoa.	17,130	Oct. 22	49	416	
Ilies, Henry F., Battersea, county of Surrey, England. Confectionery, candies, and prepared sugar.	17,131	Oct. 22	49	416	
Ingraham, James F., West Peabody, Mass. Leather made from sheep and goat skins.	17,132	Oct. 22	49	416	
Isaacs & Co., Leon, Philadelphia, Pa. Pens.	17,221	Nov. 26	49	1216	
Jackson Company, Nashua, N. H. Cotton sheetings and shirtings.	17,251	Dec. 10	49	1542	
Jackson Company, Nashua, N. H. Cotton sheetings and shirtings.	17,252	Dec. 10	49	1542	
Jackson Company, Nashua, N. H. Cotton sheetings and shirtings.	17,253	Dec. 10	49	1542	
Jackson Company, Nashua, N. H. Cotton sheetings and shirtings.	17,254	Dec. 10	49	1542	
Jackson Company, Nashua, N. H. Sheetings and shirtings.	17,255	Dec. 10	49	1542	
Jackson Company, Nashua, N. H. Cotton sheetings and shirtings.	17,256	Dec. 10	49	1542	
Johnson Optical Co., Detroit, Mich. Glasses for eyeglass and spectacle frames.	17,345	Dec. 31	49	1990	
Johnson Optical Co., Detroit, Mich. Glasses for eyeglass and spectacle frames.	17,346	Dec. 31	49	1990	
Jones, Edgar A., Sturgis, Mich. Bed-springs.	17,188	Nov. 12	49	898	
Kelley, Austin, New York, N. Y. Dress-stays.	17,315	Dec. 24	49	1848	
Kelley Island Lime and Transport Company, Cleveland, Ohio. Limo for building purposes.	17,298	Dec. 17	49	1698	
Kelley & Co., H. S., Stoughton, Conn. Limb for building purposes.	17,315	Dec. 24	49	1848	
Kendrick, Willis J., Luzerne, N. Y. Line of proprietary remedies.	17,167	Nov. 5	49	738	
Keut, Elbert H., New York, N. Y. Ice-creams, ices, water-ices, fruit-punches, sorbets, glaces, confections, and food and frozen candies.	17,346	Dec. 31	49	1990	
Kenyon & Thomas, Adams, N. Y. Medicine acting as a blood-purifier and nerve-tonic.	17,347	Dec. 31	49	1990	
	17,348	Dec. 31	49	1990	

Alphabetical list of registrants of trade-marks, October to December, inclusive—Continued.

Name, residence, and title.	No.	Date.	Official Gazette.	
			Vol.	Page.
Kerr, Hugh, New York, N. Y. Wire clasp for joints for belting.....	17,168	Nov. 5	49	738
Kerr, Walton & Co., Salem, Ohio. Chewing-gum.....	17,210	Dec. 24	49	1842
Kirk, I. G., Augsburg, Bavaria, Germany. Medical preparation for purifying the blood.....	17,078	Oct. 1	49	2
Kirk, George W., Philadelphia, Pa. Hair-tonic, tooth-powder, and toilet-powder.....	17,365	Dec. 10	49	1542
Kleinert, Isaac B., New York, N. Y. Rubber dross-shields.....	17,222	Nov. 26	49	1216
Koenig, Kate L., Philadelphia, Pa. Medicine for diseases of the blood, skin, and stomach.....	17,236	Dec. 3	49	1378
Konga Aktiebolag, Konga Tingsryd, Sweden. Wood pulp and articles made from the said pulp and metal.....	17,071	Oct. 1	49	2
Koestich, Stephen T., Leadville, Colo. Lotion or cream for the skin.....	17,349	Dec. 31	49	1990
Lagoni, Peter M., Chicago, Ill. Whisky.....	17,356	Dec. 31	49	1990
Langreider & Hammerschlag, Vienna, Austria-Hungary. Certain named articles for smokers' use.....	17,253	Dec. 10	49	1542
Le Brun, Victor, Paris, France. Fancy leather goods.....	17,306	Dec. 10	49	1542
Lehn & Fink, New York, N. Y. Perfumes.....	17,267	Dec. 10	49	1542
Lesh, Whitman & Co., New York, N. Y. Cotton goods.....	17,210	Nov. 19	49	1050
Lister's Agricultural Chemical Works, Newark, N. J., Baltimore, Md., and Rochester, Utica, and New York, N. Y. Fertilizers.....	17,147	Oct. 29	49	566
Lister's Agricultural Chemical Works, Newark, N. J., Baltimore, Md., and Rochester, Utica, and New York, N. Y. Fertilizers.....	17,179	Nov. 5	49	738
Lister's Agricultural Chemical Works, Newark, N. J., Baltimore, Md., and Rochester, Utica, and New York, N. Y. Fertilizers.....	17,180	Nov. 5	49	738
Lister's Agricultural Chemical Works, Newark, N. J., Baltimore, Md., Rochester, Utica, and New York, N. Y. Fertilizers.....	17,351	Dec. 31	49	1990
Livers, John A., Gettysburg, Pa. Manufactured fertilizers.....	17,317	Dec. 31	49	1990
Livers, John A., Gettysburg, Pa. Hydraulic pumps.....	17,332	Dec. 31	49	1990
Lyons, Clement & Greenleaf, Wauson, Ohio. Wheat flour.....	17,181	Nov. 5	49	738
Marcy & Co., Fred. I., Providence, R. I. Cuff and collar buttons.....	17,208	Dec. 10	49	1542
Markey, Joseph F., Penn Yan, N. Y. Cigars.....	17,265	Dec. 17	49	1698
Mattler, Jacob A., Kenton, Ohio. Fly-paper.....	17,113	Oct. 29	49	566
Murray, Samuel B., New York, N. Y. Pous.....	17,225	Nov. 26	49	1216
McKee, Harry A. (See Stonger and McKee.).....				
Mellersh, Frank, New York, N. Y. Medicine for throat troubles and for colds, coughs, chills, &c.....	17,148	Oct. 29	49	566
Milton & Earle, Columbia, S. C. Medicinal lotions and inhalants.....	17,299	Dec. 17	49	1698
Michigan Stove Company, Detroit, Mich., Buffalo, N. Y., and Chicago, Ill. Heating and cooking stoves and ranges.....	17,190	Nov. 12	49	898
Michigan Stove Company, Detroit, Mich., Buffalo, N. Y., and Chicago, Ill. Cooking and heating stoves, furnaces, and their various parts.....	17,299	Dec. 10	49	1542
Miller, Annie T., New York, N. Y. Reform undergarments.....	17,296	Dec. 17	49	1698
Monroe & Myers, Chicago, Ill. Medical compound for external and internal use.....	17,079	Oct. 1	49	2
Moorre, Samuel, Chicago, Ill. Oil for external and internal use.....	17,333	Dec. 31	49	1990
Morales, Pedro, Havana, Cuba. Cigars.....	17,102	Oct. 15	49	286
Morris Company, John, Chicago, Ill. Letter-files and trade-cases.....	17,259	Nov. 26	49	1216
Mottley & Mottley Milling Company, Rochester, N. Y. Wheat-flour.....	17,300	Nov. 19	49	1050
Monn City Paint and Color Company, St. Louis, Mo. Paints, fillers, and stains.....	17,294	Nov. 26	49	1216
Moriyuan, Heimana & Co., Yokohama and Hiojo, Japan, and New York, N. Y. Kerosene-oil.....	17,133	Oct. 22	49	416
Moyer, Harvey A., Syracuse, N. Y. Ride-spring weapons.....	17,118	Oct. 15	49	286
Murray & Co., Joseph F., Anacostia, Mont. Ter. Liquid remedy for rheumatism, neuralgia, and gout.....	17,090	Oct. 8	49	134
National Sheet Metal Roofing Company, New York, N. Y. Metallic shingles.....	17,254	Dec. 10	49	1542
Naville, Eugene A. (See Brignone and Naville.).....				
Nesle, Odis S., Boston, Mass. Bottled lager-beer.....	17,169	Nov. 5	49	738
Nerve Bean Co., Buffalo, N. Y. Medicine for the cure of weakness and diseases of the nervous system.....	17,227	Dec. 3	49	1398
Nixey, William G., London, England. Black lead.....	17,149	Oct. 29	49	566
Nolen, Peter. (See Hughes, Hunt, and Nolen.).....				
Northern Packing Company, San Francisco, Cal. Canned salmon.....	17,191	Nov. 12	49	898
Oppenheim, Oberdorfer & Co., Baltimore, Md., and New York, N. Y. Men's shirts and overalls.....	17,318	Dec. 24	49	1842
Orr & Co., (limited), J. B. Charlton, county of Kent, and London, England. Paints and colors.....	17,158	Oct. 29	49	566
Parnly, Ida, Bridgeport, Conn. In-door ball games.....	17,138	Oct. 22	49	416
Pearson, Sarah A. (See Triggs and Pearson.).....				
Pelton Water Wheel Company, San Francisco, Cal. Water-wheels and water-motors.....	17,270	Dec. 10	49	1542
Peninsular Stove Company, Detroit, Mich., Buffalo, N. Y., and Chicago, Ill. Stoves, furnaces, and ranges of all kinds.....	17,219	Dec. 24	49	1842
Perham, J. P. M., San Francisco, Cal. Maple-syrup.....	17,291	Nov. 19	49	1050
Peuchot & Co., A., New York, N. Y. Medicine for the treatment of diphtheria, hay-fever, catarrh, abscesses, and similar affections.....	17,170	Nov. 5	49	738
Philippi, Rudolph J., Brooklyn, N. Y. Medicine for the removal of the effects of over-indulgence in drink.....	17,271	Dec. 10	49	1542
Pickhardt & Kuntz, Wilmyn, New York, N. Y. Carbolic acid.....	17,354	Dec. 31	49	1990
Pierce, Clarence A., Woburn, Mass. Lung and throat medicine.....	17,095	Oct. 8	49	134
Pierston & Co., Stanley K., Buffalo, N. Y. Liniment.....	17,283	Dec. 17	49	1698
Pierston & Co., Stanley K., Buffalo, N. Y. Cough medicine.....	17,384	Dec. 17	49	1698
Pitt, Alexander F., Jerseyville, Ill. Liniments.....	17,226	Dec. 3	49	1398
Preston, Calvin W., Galveston, Tex. Headache remedy.....	17,292	Nov. 19	49	1050
Price, A. W., Pierson, Fla. Oranges.....	17,288	Dec. 17	49	1698
Reeves, William, Dallas, Tex. Roof-paint.....	17,220	Nov. 26	49	1216
Roberts, J. C., Frederic, New York, N. Y. Canned lobster.....	17,289	Dec. 17	49	1698
Rennie, Marion, Detroit, Mich. Medicine for the cure of rheumatism, neuralgia, and like diseases.....	17,272	Dec. 10	49	1542
Richard & Co., C. B., New York, N. Y. Photographic paper and chemicals.....	17,290	Dec. 17	49	1698
Righty, William J., Philadelphia, Pa. Stove-polish.....	17,256	Dec. 10	49	1542
Roberts, Jerry B. (See Alderman and Roberts.).....				
Roesler & Hasselacher, New York, N. Y. Quinine.....	17,355	Dec. 31	49	1990
Rosegrant, James M., New York, N. Y. A absorbent powder to check perspiration.....	17,329	Dec. 3	49	1398
Roxite Company, New York, N. Y. Composition for electric insulators and other articles.....	17,240	Nov. 5	49	738
Russell & Cady Company, New York, N. Y. Watch-cases.....	17,119	Oct. 15	49	286
Russell & Morgan Printing Company, Cincinnati, Ohio. Playing-cards.....	17,117	Oct. 15	49	286
Russell & Morgan Printing Company, Cincinnati, Ohio. Playing-cards.....	17,182	Nov. 5	49	738
Ryan Drug Company, St. Paul, Minn. Sticky fly-paper.....	17,139	Oct. 22	49	416
Ryan, James C. (See Gleason and Ryan.).....				
Ryan, Joseph, Paris, France. Toilet soap.....	17,150	Oct. 29	49	566
Simon, Joseph, Paris, France. Rice-powder for toilet use.....	17,151	Oct. 29	49	566
Sinclair & Co., T. M., Cedar Rapids, Iowa. Cooked tripe, hocks, feet, and tongues.....	17,303	Nov. 19	49	1050
Skinner Manufacturing Company, Wilmyn, Holyoke, Mass. Silk and cotton fabrics.....	17,229	Dec. 24	49	1842
Skinner, James P., Brooklyn, N. Y. Varnishes, japans, and hard oil finish.....	17,140	Oct. 22	49	416

Alphabetical list of registrants of trade-marks, October to December, inclusive—Continued.

Name, residence, and title.	No.	Date.	Official Gazette.	
			Vol.	Page.
Smadbeck, Louis. (See Spiro and Smadbeck.)				
Smith, Julius P., San Francisco, Cal. Native wines and brandies	17,341	Dec. 3	49	1368
Smith, Orlando F., Washington, D. C. Medicine to cure epilepsy	17,342	Dec. 3	49	1368
Snook & Halbe, New York, N. Y. Birds' food	17,360	Dec. 10	49	1542
Société Anonyme des Acieries d'Angleur, Liege, Belgium. Steel in ingots, blooms, billets, and bars	17,171	Nov. 5	49	738
Southern Brewing Company, New Orleans, La. Bottled beer	17,291	Dec. 17	49	1698
Spencer, James H., Martinsville, Va. Ping-tobacco	17,356	Dec. 31	49	1990
Spiro, Charles, and L. Smadbeck, New York, N. Y. Non-actinic substances for use in photographic developing and fixing baths	17,257	Dec. 10	49	1542
Spvchale & Co., F. M., Chicago, Ill. Catalogues	17,357	Dec. 31	49	1990
Staher, George, New York, N. Y. Bandages	17,172	Nov. 5	49	738
Standard Lighting Company, Cleveland, Ohio. Coal-oil lamps, lanterns, and lamp-chimneys	17,152	Oct. 29	49	566
Stein, Anton, New York, N. Y. Tokayer wine	17,080	Oct. 1	49	2
Stengel, August, Newark, N. J. Liquid paints ready for use	17,359	Dec. 10	49	1542
Stenger, Bernard J., and H. A. McKee, Homestead, Pa. Petroleum	17,192	Nov. 12	49	898
Stimpson, Edwin B., New York, N. Y. Shoes and leggins	17,173	Nov. 5	49	738
Stoll, Vannatta & Co., Lexington, Ky. Whisky	17,258	Dec. 10	49	1542
Storrs, Maria L., Cincinnati, Ohio. Pottery-ware	17,358	Dec. 31	49	1990
Straiton, Wallace, New York, N. Y. Cigars	17,193	Nov. 12	49	898
Strauss, Fritz & Co., Cincinnati, Ohio. Wild-cherry tonic	17,243	Dec. 3	49	1368
Swan Lake Mill Co., Nicollet, Minn. Patent flour	17,359	Dec. 31	49	1990
Taylor Bros., Rochester, N. Y. Clinical thermometers	17,204	Nov. 19	49	1050
Taylor, George F. H., Stillwater, N. Y. Liniment for external application	17,153	Oct. 29	49	566
Taylor & Sons, E. H., Jr., Frankfort, Ky. Whisky	17,141	Oct. 22	49	416
Taylor, William E., and G. W. Turner, New York, N. Y. Puzzles	17,081	Oct. 1	49	2
Terry & Porterfield Tobacco Company, Dayton, Ohio. Smoking and chewing tobacco	17,205	Nov. 19	49	1050
Tetley & Co., Joseph, London, England. Tea	17,082	Oct. 1	49	2
Thomson, William S., London, England. Cornets	17,124	Oct. 22	49	416
Tomato Vinegar Company, (limited), London, England. Vinegar	17,292	Dec. 17	49	1698
Toulinson & Hayward, Lincoln, county of Lincoln, England. Chemical compositions for dipping sheep, curing scab, and killing parasites	17,244	Dec. 3	49	1368
Toomer, Rebecca J., Westington, Mass. Liniment	17,245	Dec. 3	49	1368
Trigge, Jane R., and S. A. Pearson, Hamilton, Ontario, Canada. Farinaceous food for infants and invalids	17,206	Nov. 19	49	1050
Traffile & Sons, D. L., Key West, Fla., and New York, N. Y. Cigars	17,091	Oct. 8	49	134
Turner, George W. (See Taylor and Turner.)				
Vanderpool, Larkin, Dufar, Oreg. Medicine for the cure of headache and liver troubles and a cough cure	17,083	Oct. 1	49	2
Von der Labe, Henry C., Brooklyn, N. Y. Salve for healing frozen flesh wounds	17,208	Nov. 19	49	1050
Von Eckardstein, Ernst, Pyritz, Germany. Natural mineral water	17,207	Nov. 19	49	1050
Wackerhagen, Charles E., Canaan, N. Y. Straw cigarette-paper	17,106	Oct. 15	49	282
Walker & Williams, Cohoes, N. Y. Battling or hats of fibrous material	17,092	Oct. 8	49	134
Ward, William H., Boston, Mass. Basin-lifts for wash-basins and bath-tubs	17,103	Oct. 15	49	282
Warhanek, Carl, Vienna, Austria-Hungary. Preserved meat, fish, and fruit	17,104	Oct. 15	49	282
Weston, Henry E., Boston, Mass. Medicine for blood, skin, and nerve diseases	17,142	Oct. 22	49	416
Wetmore & Pride Manufacturing Company, Chicago, Ill. Laundry-starch	17,209	Nov. 19	49	1050
Wilson, Gadids & Company, Newark, N. J. Wheat-flour	17,221	Dec. 24	49	1818
Willson Bros., Edgerton, Wis. Liniments, pills, cough syrups or remedy, and ointments	17,174	Nov. 5	49	738
Wise, Harry, Chattanooga, Tenn. Tonic beverage	17,123	Oct. 22	49	416
Worth & Sons, B., Sheffield, England. Cutlery and edge-tools	17,175	Nov. 5	49	738
Wright, Charles, Detroit, Mich. Tooth-soap	17,125	Oct. 22	49	416
Wright & Company, Charles, Detroit, Mich. Tonics, febrifuges, and the like	17,211	Nov. 19	49	1050
X I X Medicine Co., Gateville, Tex. Liniment, blood-purifier, and chili-tonic	17,119	Oct. 15	49	296
Yomans, Daniel D., New York, N. Y. Hats and caps	17,120	Oct. 29	49	566
	17,222	Dec. 24	49	1848

ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

Name, residence, and title.	No.	Date.	Official Gazette.	
			Volume.	Page.
Alf Chemical Company, Chas. St. Louis, Mo. "Chas. Alf's Germ Exterminator"	6,043	Oct. 22	49	416
Baker, M. Burton, Brockton, Mass. "Haemorrhoid Panacea"	6,052	Nov. 12	49	898
Baum, Frank D., Reading, Pa. "Dr. Bell's Pine Balsam"	6,029	Nov. 19	49	1050
Beach, Mary E., Rockford, Ill. "Miss Beach's Curling Fluid"	6,076	Dec. 10	49	1542
Beggs, Charles W., Chicago, Ill. "Beggs' Dandelion Bitters"	6,062	Dec. 31	49	1990
Beggs, Charles W., Chicago, Ill. "Beggs' German Salve"	6,093	Dec. 31	49	1990
Bergmann, Anton, Boerne, Tex. "Bergmann's Screw-Worm-Liniment"	6,071	Dec. 3	49	1368
Blackburn, Claude W. (See Blackburn, Robert and C. W.)				
Blackburn, Robert and C. W., Chicago, Ill. "Hog Cholera Remedy"	6,045	Oct. 29	49	506
Billir, Hiram N., Akron, Ohio. "Billir's Spody Cure." (For a medicine)	6,025	Oct. 1	49	2
Boggs, Edwin L., Charleston, W. Va. "Jolly Glycerine and Roses with Witch-Hazel. (Com- pound for chapped hands)	6,085	Dec. 24	49	1848
Borden, John G., Walkkill, N. Y. "John G. Borden's Home Remedy"	6,062	Nov. 36	49	1216
Brown, Oliver F., and A. Farra, Lexington, Ky. "Kentucky Stock Liniment"	6,073	Dec. 3	49	1368
Carter, Dinsmore & Co., Boston, Mass., and New York, N. Y. "Carter's Black Stamping Indeli- ble Ink"	6,073	Dec. 3	49	1368
Carter, Dinsmore & Co., Boston, Mass., and New York, N. Y. "Carter's McElage"	6,074	Dec. 3	49	1368
Casto, Jabez C., Terre Haute, Ind. "Dr. Casto's New Vegetable Cough Syrup"	6,075	Dec. 3	49	1368
Chichester Chemical Co., Philadelphia, Pa. "Chichester's English, Diamond Brand, Red Cross, Pennyroyal Pills"	6,035	Oct. 15	49	286
Chichester Chemical Co., Philadelphia, Pa. "Chichester's English, Diamond Brand, Red Cross, Pennyroyal Pills"	6,036	Oct. 15	49	286
Coles, David F., Rahway, N. J. "Coles' Pervious Bark and Wild Cherry Bitters"	6,031	Oct. 8	49	134
Commercial Wood and Lime Company, Philadelphia, Pa. "Commercial Rosendale Cement"	6,076	Dec. 3	49	1368
Dairymilk, W. E., Rochester, N. Y. "Colorado Cough Cure"	6,082	Dec. 17	49	1698
Dempsey & Carroll, New York, N. Y. "Please Present at the Church with your cards enclosed."	6,053	Nov. 12	49	898
Hires, Charles E., W. Syracuse, N. Y. "Holloway's Celebrated Stomach Bitters"	6,060	Nov. 19	49	1050
Diamond, McDonnell & Co., Philadelphia, Pa. "Indigo Sick Blue." (For washing-blue)	6,094	Dec. 31	49	1990
Farrar, Aaron. (See Brown and Farrar)	6,037	Oct. 15	49	286
Graehning, Michael, Cleveland, Ohio. "Cream Coffee Compound"	6,083	Nov. 36	49	1216
Hall, Thomas C., Salt Lake, Utah. "Hall's Canker and Diphtheria Remedy"	6,084	Dec. 17	49	1698
Heller & Merz Co., New York, N. Y. "This Bluing is an Excellent Bleaching Agent"	6,084	Dec. 17	49	1698
Hicks, Thomas B., Richmond, Va. "Reversible Circular Mirror"	6,096	Dec. 24	49	1848
Hires, Charles E., W. Syracuse, N. Y. "Hires' Cough Cure"	6,041	Oct. 22	49	416
Holloway, George W., New York, N. Y. "Holloway's Celebrated Stomach Bitters"	6,079	Dec. 10	49	1542
Hoyt, Mary B., South Norwalk, Conn. "Moody's Aromatic Syrup"	6,083	Nov. 36	49	1216
Kelley, Austin, Brooklyn, N. Y. "Front." (For dress-stays)	6,096	Dec. 31	49	1990
Kendrick, Willis J., Luzerne, N. Y. "Spruce Gosh Balsam"	6,097	Dec. 31	49	1990
Kendrick, Willis J., Luzerne, N. Y. "Spruce File Ointment"	6,097	Dec. 31	49	1990
Kendrick, Willis J., Luzerne, N. Y. "Spirits of Spruce." (For medicine)	6,093	Oct. 8	49	134
Lawrence, Arthur, Chicago, Ill. "Guarantee Case. 20 years Movement."	6,038	Oct. 15	49	286
Levering, Edwin A., Philadelphia, Pa. "Styptic Lotion for Burns, Scalds, Frostbites, Cuts, and Sores"	6,039	Oct. 15	49	286
Lincoln, Oscar, Prescott, Ariz. Terr. "Dr. Toland's Liver Tonic or Blood Purifier"	6,054	Nov. 12	49	898
Lucas, Noah, Brooklyn, N. Y. "Lucas' Face and Head Lotion"	6,055	Nov. 12	49	898
Landwall, Nelson, Brooklyn, N. Y. "Landwall's Ointment"	6,060	Dec. 10	49	1542
Landwall, Nelson, Brooklyn, N. Y. "Metal Polishing Paste"	6,027	Oct. 1	49	2
Manahan, Margaret E., New York, N. Y. "Ash-Walnut Brand." (For sheathing-paper)	6,087	Dec. 34	49	1848
Manahan, Margaret, New York, N. Y. "Bric-Tight Sheathing"	6,088	Dec. 34	49	1848
Manahan, Margaret, New York, N. Y. "Stomach-Tight Sheathing"	6,083	Oct. 8	49	134
Mariner, George E., La Crosse, Wis. "Directions." (For a catarrh remedy)	6,051	Nov. 5	49	738
Meyers, Emil, Boston, Mass. "German Putz Pomade Liquid Polish"	6,081	Dec. 10	49	1542
Mohrmann, William H., Allegheny, Pa. "Home Made Ketchup"	6,056	Nov. 12	49	898
Montgomery & Co., G. S., Atlantic, Iowa. "Montgomery's Compound Tar Condition Powders"	6,028	Oct. 1	49	2
Montgomery Medicine Co., Atlantic, Iowa. "Montgomery's Compound Tar Condition Powders"	6,057	Nov. 12	49	898
Payton, L. Edward, Omaha, Neb. "Compound Vegetable Stock Food." (For domestic animals)	6,064	Nov. 26	49	1216
Pitkin & Co., F. O., Cedar Rapids, Iowa. "Out-Meal Complexion Powder"	6,061	Nov. 19	49	1050
Prentiss Chemical Company, Galveston, Tex. "Preston's Red Ake." (For medicine)	6,098	Dec. 31	49	1990
Rice & Co., Hopkinsville, Ky. "Seawall Select Twist." (For tobacco)	6,058	Nov. 12	49	898
Rubner Paint Company, Baltimore, Md. "Rubner Roofing Paint"	6,089	Dec. 24	49	1848
Sallade, Mary F., New York, N. Y. "The Magic Mosquito Bite Cure and Insect Exterminator"	6,029	Oct. 1	49	2
Samelson, Moses, New York, N. Y. "Condensed Coffee"	6,048	Nov. 5	49	738
Samelson, Moses, New York, N. Y. "Chutney Table Sauce"	6,049	Nov. 5	49	738
Samelson, Moses, New York, N. Y. "Lampbrush Polish"	6,050	Nov. 5	49	738
Sargent & Co., E. H., Chicago, Ill. "Dr. Hildebrand's Improved Syphos. Vaginal Douche and Irrigator"	6,040	Oct. 15	49	286
Schnier, Charles, Cleveland, Ohio. "Schnier's Mole and Wart Remover"	6,090	Dec. 24	49	1848
Sherman, Charles A., Rochester, N. Y. "Sherman's Sealache Capsules"	6,042	Oct. 22	49	416
Skinner Manufacturing Company, William, Holyoke, Mass. "Strictly Pure Dye." (For silk and silk and cotton goods)	6,091	Dec. 24	49	1848
Stitt, Albert H., Philadelphia, Pa. "Melted Rock Candy." (For a sirup)	6,047	Oct. 29	49	566
Taft, George H., Worcester, Mass. "The Bottom Polish"	6,044	Oct. 23	49	416
Taylor, William E., Passaic Bridge, N. J., and G. W. Turner, Brooklyn, N. Y. "Administration Puzzle"	6,030	Oct. 1	49	2
Turner, George W. (See Taylor and Turner)				
Uronhart & Co., Philadelphia, Pa. "India Sauce"	6,077	Dec. 3	49	1368
Vallean Manufacturing Company, New York, N. Y. "The Vallean Manufacturing Co. Gold Leaf, 206 Broome St., New York."	6,065	Nov. 36	49	1216
Von Laer, James P. W., Boston, Mass. "Von Laer's Sparkling Acid Phosphate Carbonated"	6,046	Oct. 29	49	566

Alphabetical list of registrants of labels, October to December, inclusive—Continued.

Name, residence, and title.	No.	Date.	Official Gazette.	
			Vol.	Page.
Whitehead Brothers, New York, N. Y. "Whitehead Bros' Dyspepsia and Malaria Pills".....	6,034	Oct. 8	49	134
Whittall, Matthew J., Worcester, Mass. "Victoria Brussels, M. J. Whittall Three Thread." (For carpets).....	6,066	Nov. 36	49	1216
Wilkinson & Roberts, Poughkeepsie, N. Y. "Dr. C. N. Campbell's Cough Cure".....	6,067	Nov. 36	49	1216
Wright, Charles, Detroit, Mich. "Myrrh Dentifrice".....	6,068	Nov. 36	49	1216
Wright, Charles, Detroit, Mich. "Myrrh Tooth Tablets".....	6,069	Nov. 36	49	1216
Wright, Charles, Detroit, Mich. "Myrrh Tooth Powder".....	6,070	Nov. 36	49	1216

DISCLAIMERS.

Name, residence, and invention.	No.	Filed.	Official Gazette.	
			Vol.	Page.
Gnasstano, Rafael, New York, N. Y.; disclaimer filed by patentee. Construction of fire-proof buildings.....	336,048	Nov. 15, 1889	49	1336
Schwarzchild, August, and Nelson Greenfield, New York, N. Y.; disclaimer filed by patentees. Confectionery.....	315,539	Oct. 9, 1889	49	286
Wilkerson, Basil M., Baltimore, Md.; disclaimer filed by assignee, the S. S. White Dental Manu- facturing Company. Dentists' chairs.....	197,441	Oct. 3, 1889	49	286

ALPHABETICAL LIST OF INVENTIONS.

Invention.	Name.	No.	Date.	Specification.	Monthly volume.	Official Gazette.
				Drawing.	Volume.	Page.
Absorbent burner for liquid fuel.	F. M. Lytle.	416,114	Nov. 26	3005	782	49 1349
Acid. Dithioisallylic.	H. Baum.	416,318	Dec. 3	249		49 1418
Acid. Making dioxynaphthalene monosulpho.	M. Ulrich.	415,257	Nov. 19	1646		49 1070
Acid. Making paratoluidine sulpho.	E. Elaeasser.	415,259	Nov. 19	1815		49 1101
Acid phosphate. Making.	C. Glaser.	417,820	Dec. 24	2500		49 1825
Acid. Purifying acetic.	I. A. F. Bang and M. C. A. Ruffin.	414,377	Nov. 5	145	26	49 766
Adding machine.	L. C. Smith.	414,335	Nov. 5	230	58	49 755
Adding machine.	E. W. Taylor.	417,654	Dec. 24	2708	713	49 1923
Adding machine.	C. H. Webb.	414,550	Nov. 12	1188	310	49 980
Address-holder for umbrellas, sticks, &c.	C. Michel.	415,116	Nov. 12	1404	367	49 1025
Addressing-machine.	R. Dick.	416,582	Dec. 3	647	175	49 1498
Adjustable bit.	J. M. Cunningham.	411,953	Oct. 1	329	67	49 52
Adjustable chair.	A. Edwards and T. Griffin.	414,801	Nov. 12	945	245	49 934
Adjustable gage.	P. Nathan.	416,737	Dec. 10	877	237	49 1531
Adjustable stand.	L. R. Harsha.	414,214	Nov. 5	57	12	49 749
Advertising and cigar-lighting casket.	D. E. Terrill.	414,342	Nov. 5	240	60	49 787
Advertising apparatus.	H. V. and F. W. Lancaster.	415,372	Nov. 26	3696	628	49 1267
Advertising device and cigar-tip cutter. Combined.	F. R. White.	412,314	Oct. 8	779	292	49 159
Advertising devices for show-windows. Means for operating.	C. E. Naylor.	416,848	Dec. 10	1040	229	49 1582
Aerial apparatus.	D. Thayer.	417,755	Dec. 24	2407	634 635 636	49 1865
Aeriform fluids. Gearing for operating apparatus for mixing.	C. C. Walworth and H. Seyter.	413,744	Oct. 29	2901	755	49 595
Agricultural boiler.	H. B. Stafford and H. W. Sak.	414,088	Oct. 29	3413	887	49 702
Agricultural boiler or heater.	J. A. Wright.	412,621	Oct. 15	1532	400	49 313
Agricultural machine.	G. H. Little.	412,638	Oct. 8	1364	330	49 325
Agricultural machine.	J. D. Morgan.	416,179	Dec. 3	46	14	49 1374
Air and gas burner.	J. M. Walters.	416,130	Nov. 26	3039	790	49 1325
Air. Apparatus for separating dust from.	E. Stockwell.	416,542	Dec. 31	3623	946	49 2114
Air. Apparatus for sterilizing.	H. E. Towne.	415,545	Dec. 31	3627	947	49 2114
Air automatic brake. Straight.	J. F. Theurer.	413,963	Oct. 29	3253	850	49 668
Air-brake.	A. R. Bolus.	414,138	Oct. 29	3485	905	49 716
Air-brake.	C. K. Daellenhaech.	415,162	Nov. 12	1518	391	49 1038
Air-brake.	T. S. E. Dixon.	412,168	Oct. 1	536	145 146 147	49 112
Air-brake.	T. S. E. Dixon.	416,506	Dec. 31	3556	930 931	49 2100
Air-brake.	F. Lansberg.	415,513	Nov. 19	2064	536	49 1152
Air-brake.	F. Lansberg.	415,514	Nov. 19	2065	536	49 1152
Air-brake.	F. Lansberg.	415,515	Nov. 19	2066	536	49 1152
Air-brake.	F. Lansberg.	415,516	Nov. 19	2068	536	49 1153
Air-brake.	F. Lansberg.	415,517	Nov. 19	2069	537	49 1153
Air-brake.	F. Lansberg.	415,522	Nov. 19	2074	538	49 1153
Air-brake.	A. P. Massey.	414,717	Nov. 12	899	215	49 911
Air-brake.	T. V. Norris.	412,905	Oct. 29	3184	547	49 430
Air-brake attachment.	W. Rymer.	416,933	Dec. 10	1187	322	49 1012
Air-brake governor.	T. H. Halskorn.	413,253	Oct. 22	2176	566	49 444
Air-compressor.	U. Cummings.	412,474	Oct. 8	1012	264	49 306
Air-compressor.	S. Guthrie.	417,482	Dec. 17	1084	559	49 1777
Air-compressor.	H. C. Sergeant.	415,822	Nov. 26	2537	663 664	49 1253
Air-compressor. Hydraulic.	I. R. and L. L. Funk.	417,717	Dec. 34	2347	619	49 1835
Air-compressor. Hydraulic.	J. W. Norris.	415,931	Nov. 26	2708	677	49 1289
Air-cooling apparatus for rooms.	L. C. Fouquet.	416,405	Dec. 3	277	101	49 1444
Air-feeding device.	J. F. Prosser and A. McLinden.	417,913	Dec. 24	2639	697	49 1911
Air-heater and steam-boiler. Combined.	P. Litter, T. Haslam, and J. Moorcroft.	413,758	Oct. 29	2918	760	49 599
Air heating and circulating device.	A. Shively.	413,097	Oct. 15	1931	505	49 390
Air-moistener.	F. H. Bailey and A. M. Dimmick.	414,179	Nov. 5	2	1	49 730
Air-moistening apparatus.	E. Klauer.	414,057	Oct. 29	3377	878	49 695
Air or steam brake.	F. Schemann.	417,448	Dec. 17	1925	513	49 1765
Alarm.						
See Burglar-alarm.	Low-water alarm.					
Door-alarm.	Safe-alarm.					
Electric alarm.	Thermostatic alarm.					
Fire-alarm.						
Alarm-lock.	G. J. Keller.	417,731	Dec. 24	2371	624	49 1858
Alarm-lock.	G. J. Keller.	417,732	Dec. 24	2372	625	49 1859
Alarm-lock.	J. W. Parrish.	417,079	Dec. 10	1373	375	49 1651
Album-leaf.	B. Fuchs.	415,842	Nov. 26	2737	713	49 1394
Album. Leaf and flower.	H. T. Cook.	412,729	Oct. 15	1409	368	49 291
Alcohol. Apparatus for purifying wood.	C. J. T. Hursey.	414,936	Nov. 12	1151	300	49 974

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Alcohol. Purifying	C. M. Fielstick	412,931	Oct. 15	1693		49	342
Alkalies. Electrolyzing salts of the	G. Kerner and J. Moser	412,935	Nov. 19	2275	393	49	1194
Alloys. Making bronze	A. Sentez, C. Marochal, and A. Samier	418,424	Dec. 31	3440		49	3076
Alloys of cast-iron and copper. Manufacturing the	H. Schneider	415,656	Nov. 19	2292		49	1197
Alloys of cast-iron and nickel. Manufacturing the	H. Schneider	415,657	Nov. 19	2293		49	1197
Alloys of steel and copper. Manufacturing the	H. Schneider	415,654	Nov. 19	2291		49	1197
Alloys of steel and nickel. Manufacturing the	H. Schneider	415,655	Nov. 19	2292		49	1197
Alloys of zinc. Manufacture of	J. C. Bull	412,016	Oct. 1	347		49	70
Amalgamator	N. L. Raber	414,351	Nov. 5	614	160	49	862
Ammonia. Apparatus for making	T. B. Fogarty	417,779	Dec. 24	2447	644	49	1874
Ammonia. Making	T. B. Fogarty	417,777	Dec. 24	2443	644	49	1873
Ammonia. Making	T. B. Fogarty	417,778	Dec. 24	2445	644	49	1873
Anesthetics. Device for administering	M. B. Smith	414,454	Nov. 5	425	107	49	825
Anatomical model	D. T. Lee	411,816	Oct. 1	59	16	49	14
Anchor	O. F. Wilson	411,948	Oct. 1	253	65	49	51
Anchor-block for buildings	W. Kruse	415,840	Nov. 26	2688	669	49	1258
Animal catching and holding device	W. Becraft	416,046	Nov. 26	2689	670	49	1258
Animal-trap	D. B. Rock	418,228	Dec. 31	3135	822	49	2014
Animal-trap	G. W. Ruid	415,567	Nov. 19	2161	564	49	1172
Animal-trap	E. E. Seeley	414,351	Nov. 5	236	57	49	784
Animal-trap	D. V. Thrift	415,777	Oct. 29	3696	807	49	1691
Animal-trap	J. F. Warnick	415,486	Nov. 19	2017	524	49	1143
Animal-tread power	D. C. Frazer and W. J. Davis	411,946	Oct. 1	301	78	49	61
Animals. Device for liberating	J. E. Wenger	418,537	Dec. 31	3618	944	49	2113
Animals. Machine for dipping	A. T. Hess	417,778	Dec. 24	2445	644	49	1873
Animals. Portable pen for	D. Duckworth	418,313	Dec. 31	3369	853	49	2041
Annunciator	F. E. Fisher	413,504	Oct. 22	2554	661	49	517
Annunciator-circuit. Hotel electrical	C. G. Armstrong	415,183	Nov. 12	1542	397	49	1042
Annunciator. Electrical	F. S. Carter	411,772	Oct. 1	1	1	49	1
Anti-friction collar	C. E. Lee	415,915	Nov. 26	2671	700	49	1281
Anti-induction system	J. J. Ludd	417,232	Dec. 17	1631	442	49	1710
Apron	C. W. Fribee	415,857	Nov. 26	2675	775	49	609
Arc light	F. von Heffer-Altenack and C. Hoffmann	412,141	Oct. 1	520	137	49	104
Argand burner	F. Rhind	416,226	Dec. 3	121	34	49	1392
Armature	A. S. Atwater	411,950	Oct. 1	255	616	49	52
Armature	W. S. Belding	415,697	Nov. 26	2360	616	49	1214
Armature-core. Dynamos and motors	F. F. Loomis	415,363	Nov. 19	1820	470	49	1102
Armature. Dynamo	J. J. Wilson	418,301	Dec. 31	3241	848	49	2035
Armature for electric machines	W. S. Belding	415,366	Nov. 26	2315	637	49	1349
Armature for electric machines	A. Schmidt and N. Tesla	417,794	Dec. 24	2469	650	49	1878
Armature-plate	W. S. Belding	415,695	Nov. 26	2356	615	49	1217
Armatures. Coil-guard for	W. S. Belding	415,696	Nov. 26	2358	616	49	1218
Armatures. Plates. Molding	W. F. M. McCarthy	415,174	Nov. 12	1534	385	49	1040
Artist's easel	A. H. Munsell	417,831	Dec. 24	2524	664	49	1888
Ash-pan cleaner	A. H. Smithson	414,455	Nov. 5	426	108	49	826
Ash-pit	D. Snell	417,885	Dec. 17	1818	497	49	1751
Astronomical dome	G. W. Hough and W. Scherzer	416,364	Dec. 3	1517	83	49	1017
Auger	J. Bailey	413,159	Oct. 22	2043	531	49	817
Auger	H. L. Shaler	413,972	Oct. 29	3236	845	49	665
Auger attachment	W. J. M. Dobson	413,316	Oct. 22	2283	594	49	655
Auger-bit die	C. H. Irwin, F. I. Hoedte, and J. W. Simmons	412,357	Oct. 15	1736	452	49	349
Auger-handle	J. N. Devoe	413,037	Oct. 15	1845	483	49	373
Auger-handle	G. B. Harris and C. W. Andrews	416,430	Dec. 3	398	106	49	1449
Auger. Post	D. B. McColl	412,857	Oct. 15	1586	414	49	472
Auger. Post-hole	F. Keller	416,062	Nov. 26	2506	758	49	1330
Automatic lubricator	W. O. Smith	416,668	Dec. 3	802	219	49	1529
Automatic lubricator	E. Atkinson	416,668	Dec. 24	2322	613	49	1849
Automatic sprinkler	C. F. Roper	412,924	Oct. 1	622	129	49	1282
Automatic sprinkler	C. F. Roper	417,396	Dec. 17	1856	497	49	1750
Automatic switch for cable roads	T. H. Roberts and R. Seibert	415,471	Nov. 19	1900	516	49	1137
Awning	W. Astrop	414,692	Nov. 12	990	256	49	943
Awning	W. H. Fullerton	415,162	Nov. 12	1389	363	49	1022
Awning-frame	C. T. Ward	414,616	Nov. 5	671	173	49	873
A wing-reel	H. M. Handshy	413,845	Oct. 29	3184	831	49	654
Axle	F. R. Hughes	413,943	Oct. 29	3196	835	49	657
Axle bearing. Car	E. Peckham	417,426	Dec. 17	1679	432	49	1717
Axle bearings. Oiler for railway	T. H. Symington	414,783	Nov. 12	917	237	49	928
Axle box and lubricator. Car	A. Inemer and P. Lynton	413,066	Oct. 15	1883	493	49	361
Axle-box blanks. Manufacturing	J. Siffert	411,876	Oct. 1	145	37	49	30
Axle box. Car	J. J. Anderson	414,746	Oct. 1	609	129	49	819
Axle box. Car	E. U. Benedict	416,890	Dec. 10	1104	301	49	1308
Axle box connection. Car	E. Best	418,487	Dec. 31	3534	924	49	2094
Axle-hox lid	C. R. Hunt	412,028	Oct. 1	364	94	49	73
Axle-hoxes. Dust-shield for car	S. H. Harrington	417,343	Dec. 17	1616	439	49	1707
Axle. Car	J. A. Brill	412,925	Oct. 1	622	129	49	1282
Axle. Carriage	J. E. Blackmore	415,935	Nov. 26	2750	718	49	1329
Axle. Carriage	J. Blais	412,453	Oct. 8	974	256	49	198
Axle-center	F. E. Beardsley	413,559	Oct. 22	2690	682	49	531
Axle. Divided car	R. F. Robbins	412,065	Oct. 1	415	107	49	83
Axle journal. Car	O. Vanorman	415,353	Nov. 19	1810	471	49	1100
Axle-lubricator	M. Haulton	414,530	Nov. 5	538	138	49	848
Axle-lubricator	J. B. Abraham	417,550	Dec. 24	2552	672	49	1893
Axle-lubricator. Car	J. F. Birchard	412,926	Oct. 1	622	129	49	1282
Axle-lubricator. Car	J. N. Dewey	414,195	Nov. 5	29	744	49	137
Axle-lubricator. Car	R. Fava	414,029	Oct. 29	3320	869	49	685
Axle-lubricator. Car	G. P. Sherman	412,424	Oct. 8	940	247	49	191

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Axle-lubricator. Car.	E. Van Decar	414,129	Oct. 29	3469	901	49	714
Axle-lubricator. Car.	H. F. West	413,771	Oct. 29	2942	767	49	692
Axle-lubricator. Car.	J. Wood	416,335	Dec. 3	574	156	49	1484
Axle. Vehicle.	J. E. Cole	414,021	Oct. 29	3319	866	49	682
Axle. Vehicle.	P. Somerville	413,650	Oct. 1	389	100	49	718
Axle. Vehicle.	W. H. Wright	414,831	Nov. 12	989	526	49	943
Axles and skeins. Making collars for.	J. J. Isberwood	412,329	Oct. 8	893	923	49	181
Axles. Apparatus for the manufacture of.	H. Aiken	415,402	Nov. 19	1873	487	49	1113
Axles by electricity. Making collars on.	H. Lemp and E. Thomson	418,198	Dec. 31	3093	812	49	906
Axles. Journal-bearing for car.	W. O. Dunbar	414,301	Nov. 5	180	45	49	773
Axles. Journal-bearing for car.	W. O. Dunbar	414,302	Nov. 5	182	46	49	774
Axles. Manufacturing.	H. Aiken	415,403	Nov. 19	1875	488	49	1113
Baby-walker	A. Petersen	414,128	Oct. 29	2469	896	49	712
Baby-walker	M. A. and R. L. Richardson	417,639	Dec. 24	2536	667	49	1890
Back and head rest. Combined.	C. E. Erick	418,004	Dec. 24	2788	735	49	1739
Back-pressure trap for sewer-pipes	J. A. Volta	417,432	Dec. 17	1931	515	49	1806
Bag.							
See Feed-bag.	Paper bag.						
Mail-bag.	Security-bag.						
Noose-bag.	Woven seamless bag.						
Bag and twine or sample holder.	F. H. Smith	412,803	Oct. 15	1508	393	49	308
Bag-fastener	R. Wilson	416,771	Dec. 10	923	340	49	1359
Bag folder. Grain.	R. Huft	417,643	Dec. 17	2237	594	49	1894
Bag-holder	F. W. Weber	415,803	Nov. 26	2513	656	49	1248
Bag-holder	A. L. Yates	412,522	Oct. 15	1533	401	49	314
Bag-holder	H. Lott	412,800	Oct. 15	926	412	49	806
Bag. Self-adjusting counter.	G. M. Herrick	414,642	Nov. 5	710	194	49	881
Bag-covering.	W. Glover	417,782	Dec. 24	2453	646	49	1875
Bale-tie	H. O. King	418,620	Dec. 31	3740	977	49	2136
Bale-tie	J. W. Griswold	418,457	Dec. 31	3469	912	49	2085
Bale-tie	W. W. Griswold	418,458	Dec. 31	3469	913	49	2085
Bale-tie	P. B. Hand	412,179	Oct. 1	578	151	49	116
Bale-tie machine	A. Henley	414,410	Nov. 5	338	85	49	807
Bale-tie machine	J. E. Morse	414,430	Nov. 5	370	93	49	816
Bales. Device for compressing, binding, and securing cotton	F. E. Town	415,850	Nov. 26	2576	673	49	1360
Baling machine. Cotton.	J. I. Boyer	415,288	Nov. 19	1702	442	49	1081
Baling-press	J. Billings	418,156	Dec. 31	3033	796	49	1903
Baling-press	P. K. Dederick	415,029	Nov. 12	1296	797	49	1000
Baling-press	J. Disman	412,167	Oct. 1	555	145	49	112
Baling-press	D. Fornaseco	414,036	Oct. 29	3339	870	49	686
Baling-press	P. Steinerwald and A. Cording	415,476	Nov. 19	1999	518	49	1140
Baling-press	C. G. Wilson	413,271	Oct. 22	2201	573	49	449
Baling-press	C. G. Wilson	413,265	Oct. 22	2263	686	49	542
Baling-press condenser	J. W. Bailey	414,671	Nov. 12	764	197	49	899
Balloon	S. A. King	417,319	Dec. 17	1848	595	49	1749
Band-cutter	A. W. Storer	414,437	Nov. 5	428	109	49	826
Band-cutter and feeder	V. C. Bailey	412,064	Oct. 1	413	106	49	83
Band-cutter and feeder	F. Boden	417,970	Dec. 24	2740	721	49	1930
Band-cutter and feeder	M. A. Smith	415,592	Dec. 31	3702	967	49	2129
Band-cutter and feeder	A. J. and C. H. Wirtz and H. J. C. Richter	413,992	Oct. 29	3266	853	49	679
Bandage for veterinary use, &c.	G. T. Chapman	414,732	Nov. 12	875	227	49	920
Bandage. Suspensory	A. T. Wells	412,441	Oct. 8	857	222	49	195
Bandage	A. T. Brewer	417,808	Dec. 24	2492	657	49	1382
Banjo	E. Boulanger	415,019	Nov. 12	1276	333	49	998
Banjo	J. F. Bower	415,320	Nov. 19	1733	455	49	1092
Banjo-thimble	S. S. Stewart	412,579	Oct. 22	954	688	49	357
Banjos or guitars. Bell attachment for	A. B. Koenig and J. B. Van Cleave	416,064	Nov. 26	2699	758	49	1331
Banjos or guitars. Capodastro for	R. Gill and F. A. Kilber	416,057	Nov. 26	2699	756	49	1329
Banjo. Tail-piece for	R. C. Bookser	416,364	Dec. 31	3350	874	49	2056
Bank-note holder	F. O. Young	415,763	Nov. 26	2460	642	49	1237
Bar.							
See Car draw-bar.	Planing-machine guide-bar.						
Cutter-bar.	Skylight ventilating saab-bar.						
Detector-bar.							
Harvester sickle-bar.							
Barber's chair register	J. H. Jackson	416,627	Dec. 3	713	193	49	1512
Bark from tree-sections. Machine for removing.	F. F. Torn	416,794	Dec. 19	944	255	49	1563
Bark. Stacking	F. Gebcke	414,516	Nov. 5	544	121	49	844
Barrel	D. G. Clemow	414,020	Oct. 29	3318	865	49	689
Barrel	T. L. Norman	412,975	Oct. 15	1749	457	49	354
Barrel	L. L. Sagendorf	415,626	Dec. 31	3749	979	49	2138
Barrel	C. F. Heims	415,014	Nov. 12	1270	331	49	997
Barrel-bead	J. A. Campbell and G. P. Harrison	417,230	Dec. 17	1690	434	49	1704
Barrel-bead	A. L. North and H. Howe	418,420	Dec. 31	3436	898	49	2075
Barrel-hoop-driving machine	J. E. Keatney	411,532	Oct. 8	83	23	49	90
Barrel-lining	W. J. McNeill	416,284	Dec. 3	105	49	49	1206
Barrel-pitching machine	E. J. Ott	413,542	Oct. 22	2600	674	49	525
Barrels, &c. Implement for banding	J. S. McNeill and W. J. Shaw	417,578	Dec. 17	2146	571	49	1806
Barrow. Charging	D. M. Shibe	412,342	Oct. 8	826	210	49	168
Base-ball	D. M. Shibe	415,884	Nov. 26	2630	886	49	1271
Basin. Lavatory.	J. E. Boyle	417,223	Dec. 17	1590	431	49	1702
Basin. Wash	H. L. Seymour	413,765	Oct. 29	2932	704	49	690
Basin waste and stop	G. L. Gilcher	413,365	Oct. 22	2363	611	49	478

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & G.	Vol.	Page.
Basket. Fruit.	C. C. Lewis.	412,105	Oct. 1	465	121	49	94
Basket. Fruit.	W. Patten.	413,555	Nov. 19	2138	556	49	1168
Basket-handles. Apparatus for shaping and drying	A. Burns.	413,023	Oct. 15	1829	478	49	370
Basket. Slave.	J. W. Allegre.	414,894	Nov. 12	1996	281	49	962
Bath.							
See Copying-bath.							
Bath-mitten.	R. Cowen and P. W. Pratt	413,906	Nov. 12	1283	335	49	1000
Bath-tub, wash-basin, or sink.	C. H. Moore	416,375	Dec. 31	3365	878	49	2059
Bathing apparatus.	C. F. L. Dittmann	412,244	Oct. 8	677	182	49	141
Bating.	W. Dieterle	413,615	Oct. 22	2714		49	549
Batteries. Electrolytically reducing plates for secondary	S. C. C. Currie	412,323	Oct. 8	791	206	49	162
Batteries. Manufacture of porous pots for electric.	E. L. Mayer and H. Liepmann	417,436	Dec. 17	1968		49	1762
Batteries. Treatment of porous pots for electric.	E. L. Mayer and H. Liepmann	417,392	Dec. 17	1850		49	1750
Battery.							
See Electric battery.							
See Electro-medical battery.							
Battery-carbon.	C. A. Hussey	414,317	Nov. 5	206	51	49	779
Battery-compound. Galvanic.	W. P. Kookogey.	413,345	Oct. 22	2331		49	472
Battery-connecting device. Electric.	W. F. Smith	412,342	Oct. 22	2365	640	49	499
Battery-connector.	W. F. Smith	412,346	Oct. 8	831	217	49	169
Battery diaphragm. Galvanic.	I. L. Roberts	414,081	Oct. 29	3406	8-5	49	700
Battery jars. Composition for lining electric.	O. A. Eshelton	413,902	Nov. 26	3758	720	49	1301
Battery plate. Secondary.	H. Ernst	417,156	Dec. 10	1490	498	49	1623
Battery plates. Apparatus for forming secondary.	S. C. C. Currie	411,787	Oct. 1	21	7	49	7
Battery plates. Forming secondary.	S. C. C. Currie	411,786	Oct. 1	19	7	49	7
Battery plates. Frame for secondary.	W. F. Smith	413,345	Oct. 8	829	217	49	169
Battery plates. Machine for the manufacture of secondary.	H. H. Carpenter	414,388	Nov. 5	161	40	49	770
Battery-sinca. Manufacturing.	F. F. Eggers	413,438	Oct. 22	2454		49	407
Battling. Machine for folding and compressing cotton.	H. Rembert	417,092	Dec. 10	1395	380	49	1655
Beam. Compound fire-proof.	W. H. Drake	412,485	Oct. 8	1033	269	49	309
Beam or girder.	R. H. Cousins	417,706	Dec. 24	2331	616	49	1851
Bearing. Anti-friction.	H. W. Libbey	411,818	Oct. 1	62	17	49	15
Bearing. Lubricant.	E. H. Holmes	412,440	Oct. 15	1569		49	320
Bearing. Roller.	R. W. Hunt	412,446	Oct. 22	2365	614	49	499
Bearing. Shaft.	C. E. Hyde	414,221	Nov. 5	67	15	49	751
Bed-bottom. Spring.	J. Hancock	413,455	Nov. 19	1966	510	49	1132
Bed-bottom. Spring.	H. M. Henry	413,612	Oct. 8	1229	322	49	348
Bed-bottom. Spring.	A. Huber	412,506	Oct. 8	1066	278	49	316
Bed-bottom. Spring.	J. B. Jones	410,679	Dec. 3	792	217	49	1527
Bed. Combination. Machine for securing	C. Bigson	412,232	Oct. 8	656	172	49	137
Bed-covers. Device for securing	R. H. Lowe	413,071	Oct. 15	1887	494	49	381
Bed. Folding.	J. David	412,478	Oct. 8	1024	286	49	208
Bed. Folding.	J. D. Ennes	417,157	Dec. 10	1497	408	49	1674
Bed. Folding.	I. Osgood	416,010	Nov. 28	2820	739	49	1314
Bed-lounge. Folding.	W. F. Spurgin	417,843	Dec. 24	2542	669	49	1691
Bed-pan.	O. Drabos	415,734	Oct. 15	1416	370	49	323
Bed-pan.	W. F. Spurgin	415,002	Nov. 12	1250	326	49	994
Bed. Sofa.	I. N. Miller	411,906	Oct. 1	273	70	49	55
Bed. Sofa.	G. H. Skinner	412,990	Oct. 15	1771	402	49	338
Bed. Wardrobe.	T. J. Appleton and B. F. Sillert	415,013	Nov. 12	1289	331	49	397
Bed. Wardrobe.	A. Lince	415,734	Nov. 26	2491	627	49	1628
Beds. Machine for punching strips for spring.	M. V. B. Hill	414,314	Nov. 5	292	50	49	778
Bedstead. Cabinet.	T. J. Baker	413,773	Oct. 29	2945	768	49	603
Bedstead crib attachment.	F. H. Hargus	415,945	Nov. 26	2722	714	49	1865
Bedstead. Folding.	J. M. Stoy	413,107	Oct. 15	1947	508	49	392
Bedstead. Invalid.	W. D. Snyder	417,108	Dec. 10	1416	386	49	1659
Bedsteads. Portable fan for.	L. L. Loomis	412,211	Nov. 19	1284	408	49	1058
Bee-feeder	A. H. Hiestman	419,403	Dec. 31	3494	914	49	2919
Bee-hive	F. E. Merriman	416,935	Dec. 10	1163	318	49	1608
Bee-hive	J. T. Alexander	412,060	Oct. 1	408	105	49	82
Bee-hive	F. E. Merriman	413,239	Oct. 22	2157	561	49	440
Bee-hive stand.	S. Lipp	416,931	Dec. 10	1158	317	49	1607
Beer, &c. Apparatus for the pasteurization of	W. Kuhn	412,632	Oct. 8	1257	398	49	253
Beer-cooler.	J. Braun	417,407	Dec. 17	1950	536	49	1771
Beer-cooling apparatus.	S. Cooke	414,308	Nov. 5	25	5	49	743
Beer-muller.	T. P. Conlon	416,442	Dec. 3	432	116	49	1456
Beer-wort or beer. Aerating and purifying	A. Bergh	414,673	Nov. 12	766	198	49	699
Bell.	E. Frost	418,560	Dec. 31	3650	955	49	2119
Bell. Call.	E. F. Rockwell	414,103	Oct. 1	320	80	49	712
Bell. Door or alarm.	E. F. Rockwell	414,124	Oct. 29	3464	900	49	1433
Bell. Electric.	E. Cox-Walker and A. A. C. Swinton	414,612	Nov. 5	367	174	49	872
Bell-ringing apparatus.	D. J. Smith	412,308	Oct. 1	614	139	49	123
Bell-striking apparatus.	E. A. Sherman	416,940	Dec. 3	3223	143	49	1712
Bells. Pneumatic apparatus for ringing.	H. L. Rosevelt	414,908	Nov. 12	1245	324	49	943
Bellows. Blacksmith's.	M. F. Sallade	418,232	Dec. 31	3141	824	49	2015
Belt-carrier.	F. Christen	417,632	Dec. 17	2525	592	49	1622
Belt-fastener.	T. M. Nichols	415,927	Nov. 26	3005	704	49	126-6
Belt. Galvanic.	E. A. Sherman	416,940	Dec. 3	3223	143	49	1712
Belt-shifting device.	W. Laughton	414,668	Nov. 5	754	194	49	859
Belt-support.	G. C. Roberts	418,384	Dec. 31	3377	881	49	2062
Belt. Suspender.	L. Sanders	413,401	Oct. 22	2408	624	49	487
Belt-tightener.	E. Van Duzee	417,898	Dec. 17	1928	514	49	1766
Belt-tightener.	E. F. Autenrieth	414,854	Nov. 12	992	247	49	943
Belt. Voltaic.	G. Rosquist	417,512	Dec. 17	2037	543	49	1787
Belting-machine.	F. A. Phillippi	416,803	Dec. 10	969	263	49	1568
	J. N. Brown	412,364	Oct. 8	856	223	49	174

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	De'g.	Vol.	Page.
Belting. Machine.....	A. Holbrook, Jr.....	417,558	Dec. 17	3121	565	49	1801
Belting. Machine.....	G. B. Smith.....	413,576	Oct. 22	3640	687	49	536
Bench. See Laundry-bench.							
Bending metal bars. Mechanism for.	G. W. Taft.....	411,941	Oct. 1	242	62	49	48
Berth-regulator for sleeping-cars. Electric.	F. E. Leibnitz.....	417,052	Dec. 10	1336	365	49	1643
Berths of sleeping-cars. Fastening for.	C. F. Ward.....	416,199	Dec. 3	71	21	49	1329
Berths. Passenger-recorder for sleeping-car.	F. E. Leibnitz.....	417,051	Dec. 10	1332	364	49	1642
Bevel.....	S. Francis.....	415,505	Nov. 19	2054	333	49	1150
Bevel.....	D. L. Werts.....	418,236	Dec. 31	3173	839	49	3029
Beveling-shears. Power.	J. Knight.....	414,225	Nov. 5	72	16	49	732
Beverage-mixing machine.	J. W. Meyer.....	416,636	Dec. 3	737	197	49	1515
Beverage preparation.	J. Moeric.....	416,361	Dec. 31	3682	561	49	2124
Bicycle.....	E. Döring and F. A. Sievert.....	417,630	Dec. 17	2110	261	49	1709
Bicycle.	T. O'Brien.....	413,414	Oct. 22	2425	630	49	491
Bicycle.	T. O'Brien.....	413,415	Oct. 22	2426	630	49	492
Bicycle.	F. Schrader.....	416,016	Nov. 26	2854	741	49	1316
Bicycle.	D. C. Stover and W. A. Hance.....	418,142	Dec. 24	3004	787	49	1978
Bicycle.....	G. T. Warwick.....	412,216	Oct. 1	627	103	49	126
Bicycle.	C. F. Watkins.....	417,655	Dec. 17	2254	164	49	1827
Bicycle attachment.	J. A. Kirk.....	413,189	Oct. 22	2083	543	49	425
Bicycle-brake.	J. J. Astor, Jr.....	417,401	Dec. 17	1861	498	49	1752
Bicycle-seat attachment.	L. F. Whitman.....	416,699	Dec. 3	819	222	49	1532
Bicycle-stop.	P. Armstrong.....	416,541	Dec. 3	584	159	49	1466
Bicycle-stop.	G. T. Warwick.....	416,696	Dec. 3	810	221	49	1530
Bicycle. Tandem.....	W. Stanley and H. S. Owen.....	415,072	Nov. 12	1349	302	49	1013
Bicycle. Water.....	C. Jorgensen.....	412,291	Oct. 8	895	243	49	181
Bill or file holder.	W. H. Cushing.....	417,155	Dec. 10	1483	407	49	1073
Billet-conveyer.	H. S. Smith.....	415,001	Nov. 12	1249	385	49	993
Billet forming. Process and mechanism for.	H. S. Smith and C. Pettigrew.....	416,902	Dec. 10	1196	295	49	1614
Billiard-cues. Tip or head for.	T. S. Meyer.....	414,775	Nov. 12	905	234	49	926
Billiard register.	O. G. Wilson.....	413,425	Oct. 22	2436	653	49	494
Bin. See Flour-bin. Grain and malt bin.							
Binder. Temporary.	J. S. Akers.....	413,122	Oct. 15	1976	515	49	358
Binder. Temporary.	G. V. Clifford.....	414,794	Nov. 12	932	241	49	931
Binder. Temporary.	E. R. Cooper.....	418,641	Dec. 31	3771	884	49	2142
Binder. Temporary.	J. F. Fitzpatrick.....	413,894	Oct. 29	3013	865	49	616
Binder. Temporary.	P. O'Marra.....	416,373	Dec. 3	332	87	49	1434
Binders. Knotter for self.	W. N. Whiteley and W. Bayley.....	415,754	Nov. 26	2446	638	49	1235
Binding-post.	P. B. Delane.....	416,298	Dec. 3	205	54	49	1408
Binding-post and thermal cut-out. Combined.	H. C. Root.....	413,813	Oct. 29	2998	780	49	613
Biscuit-cutter.	H. T. Sidway.....	414,432	Nov. 5	422	107	49	825
Bit. See Adjustable bit. Extension-bit. Bridle-bit. Mortising-bit.							
Bit attachment.	J. N. Isabel.....	417,486	Dec. 17	1991	531	49	1778
Bit holder. Brace.	H. N. Parker.....	412,535	Oct. 8	1100	290	49	224
Bit-stock.	A. A. Kent.....	417,564	Dec. 17	2128	567	49	1802
Bit-stock.	L. McMarsh.....	413,203	Oct. 22	2162	546	49	449
Bituminous rock. Apparatus for reducing natural or artificial.	F. V. Greene.....	415,167	Nov. 12	1225	303	49	1039
Blackboard.	J. H. Obergh.....	413,679	Oct. 29	2912	732	49	577
Blackboard and game-board. Combined.	L. S. Smith.....	415,371	Nov. 19	1831	477	49	1105
Blackboard eraser-rack.	A. J. Douglass.....	412,075	Oct. 1	429	111	49	86
Blackboards. Chalk-trough for.	C. W. Bowron.....	417,709	Dec. 24	2431	640	49	1870
Blackening-box holder.	L. N. Clayton.....	414,221	Nov. 5	364	41	49	770
Blackening-kit case. Shoe.	E. D. Smith.....	413,265	Oct. 22	2193	571	49	447
Blackening mixture.	J. G. Drew.....	417,910	Dec. 24	2936	604	49	1910
Blade-holder.	W. O. Cree.....	416,802	Dec. 10	1117	427	49	1598
Blank-slitting machine.	H. C. Bailey.....	417,216	Dec. 17	1579	428	49	1699
Blasting plug.	J. H. Holsey.....	414,540	Nov. 5	550	141	49	850
Bleaching.	G. H. Olin.....	415,008	Nov. 19	2224	579	49	1063
Bleaching-keir.	E. E. Drown.....	415,191	Nov. 19	1557	401	49	1053
Bleaching-powder. Making.	E. Solvay.....	417,987	Dec. 17	1688	476	49	1220
Blind fastener. Window.	G. J. Frost.....	417,940	Dec. 17	1612	438	49	1706
Blind. Venetian.	J. G. Wilson.....	414,743	Nov. 12	864	224	49	918
Blind. Window.	E. and H. Stoepplow.....	411,972	Oct. 1	280	72	49	57
Block. See Anchor-block. Car dead-block. Building-block. Pulley-block. Can-soldering block. Wig-block.							
Block cutting machine.	J. D. Reckie.....	417,367	Dec. 17	1816	487	49	1744
Board. See Chess-board. Game-board. Drawing-board. Ironing-board. Electrical switch-board. Switch-board. Wash-board.							
Boat. See Dredging-boat. Flat-bottomed boat. Fishing-boat. Life-boat.							
Boat-motor.....	G. Willett.....	418,328	Dec. 31	3296	861	49	2046

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Boats. Foot-brace for row.....	W. H. Rice.....	413,558	Oct. 22	6625	682	49	530
Bobbin.....	E. Adt.....	414,474	Nov. 5	453	114	49	832
Bobbin.....	A. Glass.....	412,163	Oct. 1	551	144	49	111
Bobbin.....	J. H. Wells.....	412,656	Oct. 6	1356	49	309	
Bobbin-frames. Tension-regulating device for.....	A. Whitfall.....	415,432	Dec. 31	3451	392	49	965
Bobbin spindle or skewer.....	J. Warrenner.....	414,930	Nov. 12	1144	399	49	973
Bobbin-winding spindles. Quill or bobbin holding device for.....	H. C. Fowler.....	416,292	Dec. 3	212	55	49	1410
Body-cooler.....	E. B. Magill.....	414,558	Nov. 5	580	150	49	855
Body-cooler and fever-reducer.....	E. B. Magill.....	414,559	Nov. 5	582	150	49	855
Boiler.....							
See Agricultural boiler. Sectional boiler.							
Domestic boiler. Steam-boiler.							
Hot-water boiler. Wash-boiler.							
Locomotive-boiler. Water-tube boiler.							
Boiler.....	J. Baird.....	411,882	Oct. 1	133	40	49	32
Boiler.....	J. Baird.....	415,135	Nov. 12	1433	375	49	1030
Boiler.....	E. Beggs.....	415,894	Nov. 26	9839	691	49	1274
Boiler.....	J. Devine.....	415,768	Nov. 26	9467	644	49	1239
Boiler.....	E. Gillet.....	414,496	Nov. 12	952	247	49	936
Boiler.....	H. C. Groves.....	416,363	Dec. 3	316	82	49	1431
Boiler.....	J. R. Lutgen.....	416,412	Dec. 3	368	103	49	1447
Boiler.....	H. H. Prange.....	412,116	Oct. 1	477	124	49	96
Boiler.....	W. J. Ranton.....	414,167	Oct. 29	3334	923	49	727
Boiler.....	J. N. Roberts.....	417,443	Dec. 17	1916	512	49	1764
Boiler.....	E. P. Waggoner.....	416,129	Nov. 26	3038	789	49	1353
Boiler.....	J. S. Williams.....	414,101	Oct. 29	3432	790	49	796
Boiler casing. Steam.....	V. W. Blanchard.....	413,919	Oct. 29	3137	825	49	648
Boiler cleaner. Steam.....	E. Ainsworth and L. J. Lingo.....	418,147	Dec. 31	3021	793	49	1991
Boiler-cleaning device.....	C. Brown.....	412,458	Oct. 8	979	357	49	199
Boiler feeder and indicator. Steam.....	J. S. Forbes.....	418,607	Dec. 31	3730	871	49	2133
Boiler fire-box. Steam.....	J. Abell.....	413,997	Oct. 29	2978	855	49	673
Boiler-furnace. Steam.....	W. G. Dodd.....	417,475	Dec. 17	1975	536	49	1775
Boiler furnace. Steam.....	E. Fales.....	415,627	Nov. 19	2354	588	49	1189
Boiler furnace. Steam.....	C. H. Wilson and E. W. Berry.....	412,668	Oct. 15	1597	416	49	325
Boiler furnace. Steam.....	L. D. York.....	411,949	Oct. 1	254	65	49	51
Boiler try-gage.....	G. W. Rodgers.....	412,417	Oct. 8	951	24	49	149
Boiler-tube cleaner.....	S. Kelly.....	417,646	Dec. 17	2241	595	49	1825
Boiler water-feeder.....	C. A. L. Rabendrier.....	414,004	Oct. 29	3287	858	49	675
Boilers. Constructing.....	W. J. Ranton.....	414,168	Oct. 29	3536	923	49	727
Boilers. Filter and heater for steam.....	W. Dougherty.....	417,712	Dec. 24	2339	617	49	1833
Boiling apparatus. Steam.....	M. B. Byrne.....	416,563	Dec. 3	616	168	49	1492
Bolt or mooring-post.....	H. Fletcher.....	415,965	Nov. 26	2761	721	49	1301
See Meal-bolt. Rotary bolt.							
Bolt.....	A. F. de Villepigne and L. G. de Bertram.....	417,325	Dec. 17	1604	435	49	1704
Bolt.....	P. J. Dredland.....	414,383	Nov. 5	995	75	49	797
Bolt.....	S. N. Park.....	414,570	Nov. 5	397	154	49	859
Bolt.....	L. Seoben and S. Friedenstein.....	412,986	Oct. 15	1765	460	49	357
Bolt.....	J. H. Slater.....	412,551	Oct. 8	1119	293	49	928
Bolt.....	H. E. Smith.....	417,165	Dec. 10	1413	385	49	1658
Bolt-heading machine.....	E. Burdall, Jr.....	417,538	Dec. 17	2096	552	49	1796
Bolt-lock.....	E. D. Galbreath, W. Dunkle, and B. Chapman.....	415,711	Nov. 26	2263	622	49	1223
Bolt-threading machine.....	F. R. Scofield.....	417,344	Dec. 17	1773	476	49	1736
Bolt-threading machines. Means for operating the die-heads of.....	F. R. Scofield.....	417,659	Dec. 17	2259	599	49	1828
Bolts or rivets. Heading-blanks for.....	A. M. McGee.....	414,949	Nov. 12	1172	305	49	978
Bolting-reel.....	J. E. Welch.....	415,628	Nov. 19	2344	611	49	1207
Bone furnace. Ground.....	E. Urbain.....	414,698	Nov. 5	650	171	49	871
Book.....	A. B. Skinner.....	415,798	Nov. 26	2504	683	49	1346
Book-binding.....	W. I. Blackman.....	416,553	Dec. 3	601	163	49	1490
Book. Blank.....	F. C. F. Mullins.....	416,639	Dec. 3	731	198	49	1316
Book case or stand.....	O. C. Price and A. Bittong.....	414,580	Nov. 5	612	159	49	861
Book-holder. Adjustable.....	G. F. Swartz.....	415,588	Nov. 19	2192	572	49	1178
Book or music racks. Leaf-holder for.....	J. H. Ferguson.....	416,588	Dec. 3	658	178	49	1500
Book. Press-copying.....	L. E. Wilson.....	417,963	Dec. 24	2722	716	49	1925
Book-rest.....	W. C. Dew.....	417,800	Dec. 24	2567	676	49	1806
Book-rest.....	J. P. Findley.....	414,392	Nov. 5	316	79	49	801
Book. Shipping or other.....	G. H. Wheeler.....	415,932	Nov. 26	2711	707	49	1290
Book stapling machine.....	J. Lynam.....	412,712	Oct. 8	1376	358	49	276
Book-strap and scolar's companion. Combined.....	I. G. Raffel.....	417,942	Dec. 24	2694	709	49	1920
Books. Making account.....	J. W. Horne.....	417,247	Dec. 17	1622	440	49	1709
Books. Making memorandum.....	J. Cussons.....	414,500	Nov. 5	488	124	49	830
Books. Straight-edge for receipt or stub.....	11,365.....	411,365	Oct. 1	191	48	49	39
Boom standard. Spinnaker.....	F. J. Gervalt.....	413,046	Oct. 15	1802	72	49	801
Boot-leg tops to trousers. Device for securing.....	W. H. Harris.....	416,676	Dec. 3	706	216	49	1267
Boot or shoe.....	W. H. Allen, Jr., and A. N. Makepeace.....	414,560	Nov. 5	926	617	49	792
Boot or shoe.....	S. Beattie.....	411,776	Oct. 1	5	2	49	3
Boot or shoe.....	J. L. Joyce.....	417,044	Dec. 10	1323	362	49	1640

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'k.	Vol.	Page.
Boot or shoe.	L. E. Scafe	416,861	Dec. 10	1058	385	49	1586
Boot or shoe.	C. Wilton	416,532	Dec. 3	570	185	49	1463
Boot or shoe button-hole piece	E. M. Phelps	413,807	Oct. 22	2703	703	49	547
Boot or shoe heel.	E. A. Manger	413,862	Oct. 20	3068	799	49	637
Boot or shoe heel.	C. A. Strasser	413,419	Oct. 22	2430	631	49	493
Boot or shoe heel trimming machine	R. H. Southall	414,731	Nov. 12	847	219	49	914
Boot or shoe heels. Attaching	F. F. Raymond, 2d	413,963	Oct. 29	3222	841	49	963
Boot or shoe lasting machine	T. Brining	412,235	Oct. 8	661	173	49	137
Boot or shoe lasting machine	T. Brining	412,236	Oct. 8	664	175	49	138
Boot or shoe nailing machine	S. W. Robinson	416,372	Dec. 3	179	48	49	1403
Boot or shoe. Spring-heel	F. F. Raymond, 2d	412,896	Oct. 15	1641	428	49	333
Boot or shoe. Ventilated	W. Church	417,558	Dec. 24	2566	676	49	1895
Boots. Hip attachment for	C. G. Boxer and A. W. Sidesinger	413,149	Oct. 15	2019	536	49	407
Boots or shoes. Rotary trimmer for	A. S. Vose and D. J. Hackins	417,612	Dec. 17	2194	584	49	1816
Boots or shoes while being operated upon. Jack for holding	G. H. Clark	417,148	Dec. 10	1486	405	49	1672
Boring implement	J. W. Thackara	417,116	Dec. 10	1429	389	49	1061
Boring machine. Metal	J. Wheelock	413,697	Oct. 29	2640	740	49	582
Boring underent holes in metal	H. James	412,508	Oct. 8	1068	279	49	316
Bottle and cork cap. Combined	P. C. Biersach	413,892	Oct. 29	3119	813	49	638
Bottle cover. Ink	G. F. Goulding	414,099	Nov. 12	805	209	49	906
Bottle for liquid bluing	J. C. Chamberlain	412,366	Oct. 8	860	224	49	174
Bottle nipple. Nursing	A. C. Eggers	411,793	Oct. 1	28	9	49	9
Bottle nipple. Nursing	A. C. Eggers	411,794	Oct. 1	29	9	49	9
Bottle. Nursing	T. C. Chalk	416,355	Dec. 3	306	80	49	1429
Bottle protector	A. H. Kelton	414,417	Nov. 5	363	89	49	812
Bottle-stopper	R. Bloesser	417,139	Dec. 10	1468	398	49	1608
Bottle-stopper	E. W. and T. W. Hazlehurst, and J. Wolstenholme	413,507	Nov. 19	2056	534	49	1150
Bottle-stopper	M. Sierendorff	418,077	Dec. 24	2694	760	49	1859
Bottle-stopper-retaining device	J. J. Sands	413,462	Oct. 22	2485	645	49	503
Bottle-stopper. Self-adjusting	L. M. Cohn and L. H. Watson	415,939	Nov. 26	2732	712	49	1293
Bottle-stopper. Water	A. C. Eggers	411,795	Oct. 1	29	10	49	9
Bottle-stoppers. Retaining device for	J. J. Sands	413,370	Dec. 29	3232	845	49	964
Bottles and other like hollow glassware. Manufacturing	H. M. Ashley	416,149	Dec. 3	1	1	49	1369
Bottles. Combined metallic cap and fastener for	H. W. Libbey	415,171	Nov. 12	1330	394	49	1040
Bottles containing liquids under pressure. Means for opening	F. Foster	411,890	Oct. 1	170	43	49	35
Bottles. Dropping-stopper for medicine	W. W. and E. F. Preston	412,788	Dec. 15	1487	388	49	305
Bottles holding powders, liquids, or other substances. Stopper for	H. G. Boston	417,981	Dec. 24	2745	733	49	1931
Bottles. Jacket for	H. C. Yeom and M. V. Kaeer	415,134	Nov. 12	1433	375	49	1090
Bottles, &c. Machine for finishing the necks of	C. N. Brady	416,559	Dec. 3	859	166	49	1491
Bottles. Machinery for the manufacture of	D. Rylands	416,376	Dec. 3	340	89, 90	49	1436
Bottles, &c. Stopper for	F. Bridge	418,549	Dec. 31	3631	949	49	2115
Bonquet-pin	W. A. Brunka	412,833	Oct. 15	1549	405	49	317
Box	O. V. Bittersdorff	416,892	Dec. 10	1106	301	49	1296
Box	J. J. Rust	417,684	Dec. 17	2295	608	49	1835
Box. Corner-joint. Packing	A. T. Linderman	411,924	Oct. 1	215	55	49	44
Box-ending machine	E. W. and C. E. Bullard	414,747	Nov. 12	861	285	49	918
Box-fastener	J. T. Gardner	414,635	Nov. 5	697	181	49	878
Box-fastening	C. C. Richmond	413,245	Oct. 22	2165	564	49	441
Box-fastening	M. Rubin	414,590	Nov. 5	633	165	49	866
Box-finishing machine	E. W. and C. E. Bullard	414,426	Nov. 5	372	92, 93	49	814
Box for jewelry, silverware, &c	L. Burt	415,660	Nov. 19	2283	597	49	1197
Box for retailers' use	J. M. and B. C. Witte	415,010	Nov. 12	1265	330	49	996
Box-making machine	T. Herberger and R. Singer	413,323	Oct. 22	2292	596	49	466
Box-opening tool	C. E. Titus	416,206	Dec. 3	84	34	49	1285
Box-pasting machine	C. E. Titus	415,660	Nov. 19	2283	597	49	1197
Box-setting-up machine	C. F. Pease	416,271	Dec. 3	116	47, 48	49	1403
Boxes. Machine for attaching metal clips to card-board	J. Geiger	416,908	Dec. 10	1126	307	49	1690
Boxes. Machine for making metal corner-fastenings for	C. T. Romus	417,337	Dec. 17	1733	473	49	1733
Brace	F. M. Leavitt, A. O. Kittredge, and J. White	417,255	Dec. 17	1634	442	49	1710
Brace-bender	W. H. Ball	416,887	Dec. 10	1009	296	49	1264
Bracelet							

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. 56	Vol.	Page.
Bracket:							
See Curtain-bracket.							
Shelf-bracket.							
Brading-machine	D. Drawhaugh	412,369	Oct. 8	863	925	49	175
Brading-machine	T. Finigan	416,905	Dec. 10	1121	306	49	1599
Brading-machine	D. D. Griffin	417,172	Dec. 10	1517	413	49	1678
Brading-machines.	Bobbin-carrier for	415,311	Nov. 19	1741	452	49	1089
Brakes:							
See Air-brake.	Steam-brake.						
Air or steam brake.	Threshing-machine						
Bicycle-brake.	brake.						
Car-brake.	Track-brake.						
Electro-magnetic	Track-brake.						
brake.	Vehicle-brake.						
Locomotive-brake.	Wagon-brake.						
Power-brake.	Wheel-brake.						
Spinning spindle							
brake.							
Brake	J. R. Willson	415,653	Nov. 26	2551	675	49	1361
Brake apparatus for six-wheeled trucks	G. Westinghouse, Jr.	415,595	Nov. 19	2201	574	49	1179
Brake for electric-car trucks	L. Pfingst and S. A. Beaul	414,575	Nov. 5	662	155	49	800
Brake-handle	J. Kirby, Jr.	413,894	Oct. 29	2385	778	49	610
Brake-heads.	Balance-spring for	417,181	Dec. 10	1528	416	49	1680
Brake-latch	M. G. Smith	414,729	Nov. 12	844	218	49	914
Brake-operating mechanism	E. Backus	415,338	Nov. 19	1783	463	49	1006
Brake-shoe	S. Hatt	411,861	Oct. 1	128	464	49	27
Brake-shoe	C. W. Roepper	415,736	Nov. 26	2415	631	49	1259
Brake-shoe	G. B. Ross	413,560	Oct. 22	2628	682	49	531
Brake-shoe	W. D. Sargent	416,379	Dec. 3	345	91	49	1437
Brake system.	Electric train	414,418	Nov. 5	364	90	49	813
Bread-raiser	E. and A. Bushyager	411,853	Oct. 1	120	31	49	36
Break-scalper	J. B. Martin	415,050	Nov. 12	1320	344	49	1007
Brewers' grains. Press for extracting moisture from	W. P. Preston and J. J. Kelley	413,663	Oct. 29	2815	733	49	578
Brewers' worts. Apparatus for cooling and aerating	R. Ergan	417,911	Dec. 24	2637	696	49	1910
Brick	G. M. Fiske	415,773	Nov. 26	2470	645	49	1240
Brick	O. M. Fiske	415,774	Nov. 26	2471	645	49	1240
Brick	C. E. Poston	418,659	Dec. 24	2651	753	49	1954
Brick. Arch.	O. R. Moldenhauer and C. Poock	418,309	Dec. 31	3106	814	49	3008
Brick-carrier	J. H. Steele	416,430	Dec. 3	414	111	49	1452
Brick. Composition for haslo.	E. Bertrand	413,127	Oct. 15	1982		49	399
Brick-drying rack	J. Dennis	415,407	Nov. 19	1882	491	49	1115
Brick for furnaces	V. W. Blanchard	413,897	Oct. 29	3124	815	49	630
Brick-kiln	F. P. Meyenberg	412,399	Oct. 8	904	226	49	183
Brick-kiln	J. H. Thissen and M. M. Arnold	415,482	Nov. 19	2010	521	49	1142
Brick-kiln. Chamber	F. H. Jung	417,729	Dec. 24	2365	622	49	1858
Brick-machine	V. D. Graves	417,330	Dec. 17	1735	467	49	1729
Brick-machine	C. H. Horton	415,276	Nov. 19	1661	429	49	1074
Brick-machine	W. Johnson	415,343	Nov. 19	1790	465	49	1098
Brick-machine	L. B. Kennedy	414,055	Oct. 29	3372	877	49*	693
Brick-machine	B. C. White and J. A. Boyd	418,069	Dec. 24	2926	708	49	1165
Brick-machine mold-table	B. C. White and J. A. Boyd	418,100	Dec. 24	2936	709	49	1166
Brick-mold	A. Paul	414,916	Nov. 12	1127	293	49	969
Brick or tile machines. Detachable head for	E. Botwell, N. L. Dargis, and A. Andrews	415,854	Oct. 29	3027	719	49	619
Brick-pallet	R. J. Stuart	414,926	Nov. 12	1139	297	49	972
Brick-pressing machine	C. W. Raymond	417,837	Dec. 24	2530	666	49	1889
Brick-sanding machine	L. Roll	414,329	Nov. 5	220	55, 56	49	782
Brick-work construction.	G. M. Fiske	415,772	Nov. 26	2470	645	49	1240
Brick-yard cultivator	A. J. Bates	413,482	Oct. 22	2517	652	49	510
Bricks. Machine for re-pressing	O. Baird and J. Cornell	412,220	Oct. 8	652	171	49	136
Bridge	G. N. Clymer	416,054	Nov. 26	2495	726	49	1328
Bridge. Arch	J. Cowdon	414,859	Nov. 12	1035	267	49	951
Bridge-coupling for switch-rod, &c.	A. H. Johnson	415,388	Nov. 10	1854	453	49	1109
Bridge-gate	G. Turner	417,293	Dec. 17	1697	457	49	1722
Bridge-gate	J. F. Wistrom	415,011	Nov. 12	1267	331	49	996
Bridge-gate. Swinging	E. Girard	413,277	Oct. 22	2215	577	49	451
Bridge guard. Railway	O. F. Jordan	413,419	Oct. 22	2574	667	49	520
Bridge. Lift	L. M. Friar	417,461	Dec. 17	1951	529	49	1777
Bridge or sidewalk. Nailless	D. S. Cole	416,570	Dec. 3	628	170	49	1494
Bridge. Suspension	G. N. Clymer	413,172	Oct. 22	2002	536	49	421
Bridge. Suspension	G. W. Little	417,054	Dec. 10	1540	366	49	1643
Bridges. Foundations for signal-rod for draw	J. T. Hamby	417,177	Dec. 10	1524	367	49	1679
Bridges. Safety-gate for draw	B. R. Hoyt and L. Fracher	418,027	Dec. 24	2917	743	49	1945
Bridges. Traction-cable for draw	W. Philtrant	416,096	Nov. 26	2474	775	49	1343
Bridge	R. S. Kinkad	413,272	Oct. 8	717	187	49	148
Bridge attachment. Overdraw	P. L. Nash	413,829	Oct. 20	3021	726	49	617

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Vol.	Page.
				Spec.	Dis.		
Bridle-bit	C. E. Gny	418,012	Dec. 24	2796	738	49	1941
Bridle-bit	C. F. Pond	418,422	Dec. 3	401	108	49	1450
Bridle-bit	T. S. B.	418,736	Oct. 29	2851	733	49	2623
Brimes, water, &c. Purifying	J. A. Bradburn, E. N. Trump, and J. D. Penneck	413,432	Oct. 22	2414	49	49	486
Bromides of the alkalies. Making	F. W. A. Frerichs	414,835	Nov. 12	963	.....	49	944
Bronzing-machine	W. P. H. Gladden	413,692	Oct. 22	2696	701	49	945
Broom-comb machine	A. Anderson	413,853	Oct. 29	3106	809	49	636
Broom-moistener	H. Weitzel	417,349	Dec. 17	1736	480	49	1738
Broom spray attachment	C. M. Jacoby	412,092	Oct. 1	449	116	49	90
Brooms or brushes. Scraper attachment for	F. C. Schroen	412,002	Oct. 1	341	84	49	90
Brooms, &c. Stick or handle holder for	H. J. Gocht	418,609	Dec. 24	2793	737	49	1940
Brush	R. Foster	416,330	Dec. 3	264	69	49	1422
Brush	A. M. Gorbell	416,390	Dec. 3	661	179	49	1501
Brush	E. R. Graham	414,696	Nov. 12	803	309	49	906
Brush	A. H. Grunewald	416,362	Dec. 3	315	82	49	1431
Brush	M. Young	412,384	Oct. 8	885	231	49	180
Brush. Blacking	M. Young	412,692	Oct. 8	1346	330	49	271
Brush. Blacking	C. N. Wilcox	415,006	Nov. 12	1852	733	49	2623
Brush-bodies. Machine for boring	M. Young	415,354	Nov. 19	1810	471	49	1100
Brush. Circular	N. Knowles and W. Phillips	414,471	Nov. 5	449	114	49	831
Brush. Foot	F. H. Cyrenius	417,566	Dec. 17	2131	567	49	1803
Brush for mounting the sheets of copying-books	G. E. Ricketts	414,143	Oct. 29	3496	968	49	719
Brush-holder	L. D. Goidt	412,130	Oct. 1	479	125	49	97
Brush-keeper	A. M. Cook	416,597	Dec. 3	669	181	49	1502
Brush-machine. Scrub	A. M. Cook	412,461	Oct. 8	944	258	49	300
Brush-milling machine	L. Strickel	413,948	Oct. 13	1714	448	49	347
Brush. Paint	L. D. Gould	412,305	Oct. 8	764	199	49	156
Brush. Rubber tooth	L. D. Gould	416,596	Dec. 3	668	180	49	1502
Brush. Scrubbing	H. E. Van Horne	411,810	Oct. 1	196	50	49	40
Brush. Tooth	W. H. Day and G. Dimmer	414,379	Nov. 5	290	74	49	796
Brushes. Molding-block for the manufacture of	B. V. Chishman	416,401	Dec. 3	372	99	49	1443
Bucket attachment. Scrubbing	L. W. Maschke	413,788	Oct. 29	2965	773	49	607
Bucket. Coal	A. J. Light	413,536	Oct. 22	3381	699	49	2522
Bucket cover. Sap	W. E. and E. S. Ludlow	413,936	Oct. 22	2154	560	49	419
Bucket-elevator for flouring-mills	H. Blake	418,490	Dec. 31	3537	925	49	2095
Bucket. Fire	W. J. Parly	415,419	Nov. 26	2531	661	49	1292
Buckets, tubs, &c. Ear or bail for	H. Robinson	416,253	Oct. 31	3325	843	49	3038
Buckle	C. C. Robinson	418,067	Dec. 3	287	74	49	1038
Buckle	J. W. Bassett	413,362	Oct. 22	2382	617	49	481
Buckle	J. Beattie	416,985	Dec. 10	1221	334	49	1630
Buckle	J. P. Behrens	411,777	Oct. 1	6	2	49	4
Buckle	J. Elson	415,164	Nov. 12	1720	392	49	1038
Buckle	C. H. Farmer	418,556	Dec. 31	3639	951	49	2116
Buckle	M. H. Freidline	413,751	Oct. 29	2909	757	49	506
Buckle	J. S. Gilbert	413,776	Oct. 29	2949	769	49	607
Buckle	J. Gump	413,052	Oct. 15	1868	487	49	373
Buckle	C. R. Harris. (Reissue)	11,039	Nov. 5	759	196	49	390
Buckle	J. D. and S. H. Hartley	414,407	Nov. 5	335	84	49	806
Buckle	L. Hausmann	417,420	Dec. 17	1886	505	49	1758
Buckle	E. B. Knapf and J. H. Cramer	417,646	Dec. 17	2242	595	49	1825
Buckle	T. B. Magruder, I. C. Griffith, and L. W. Swafford	414,560	Nov. 5	324	150	49	836
Buckle	L. Mayer	416,480	Dec. 3	422	131	49	1466
Buckle	L. Selling	415,352	Nov. 19	1809	470	49	1109
Buckle	G. I. Smith	413,375	Oct. 22	2375	615	49	480
Buckle and snap-hook. Combined	M. I. Winters	412,151	Oct. 1	533	140	49	108
Buckle and snap-hook. Combined	C. Smith	418,001	Dec. 24	2783	734	49	1938
Buckle and tab-ring. Suspender	E. B. Knapf	416,496	Dec. 3	1808	489	49	1038
Buckle-guard	J. Parker	417,582	Dec. 17	2152	573	49	1807
Buckle. Shoe	C. H. Smith	417,850	Dec. 24	2702	712	49	1922
Buckle. Strap	C. Smith	416,185	Dec. 3	63	16	49	1379
Buckle. Suspender	C. Smith	416,759	Dec. 10	968	289	49	1056
Buckle. Tag	S. A. Collins	417,989	Dec. 24	2760	728	49	1934
Buffer-wheel	J. Myers	416,942	Dec. 10	1173	320	49	1610
Buffing-roll	L. H. and G. W. Burgess	416,222	Dec. 3	162	30	49	1389
Buggy-boot	E. M. Hickman	417,732	Dec. 3	2357	621	49	1857
Buggy-tops. Binding for	T. E. Keavy	417,730	Dec. 24	2570	624	49	1857
Buggy-washing device	C. Bauer	415,375	Nov. 19	1835	478	49	1106
Building-block	C. Bauer	417,318	Dec. 17	1562	428	49	1700
Building-block or brick	C. B. Butler	416,894	Dec. 10	1809	270	49	1574
Buildings. Construction of	J. S. Goodwin	415,067	Nov. 26	2714	698	49	1934
Buildings. Sill for	A. J. Judge	415,642	Nov. 19	2273	593	49	1193
Bullet-mold	A. Wolff	414,651	Nov. 12	1028	265	49	949
Bullet-mold	J. J. Weaver	414,294	Dec. 3	167	42	49	771
Bullet-mold	W. R. Davis	415,596	Dec. 31	3710	939	49	2136
Bullet-mold	W. R. Davis	416,578	Dec. 3	662	174	49	1497
Bullet-mold	W. W. Harris	413,939	Oct. 29	3190	823	49	656
Bullet-mold	E. H. Lumley	417,735	Dec. 24	2573	625	49	1859
Bullet-mold	E. Pettie and L. Metzger	413,861	Oct. 29	2913	725	49	1909
Bullet-mold	F. H. Kane	412,959	Oct. 15	1731	432	49	350
Bullet-mold	G. C. Peeling	418,423	Dec. 31	3430	899	49	3076
Bureau-drawer	C. D. Bowyer and C. W. Lear	418,157	Dec. 31	3655	797	49	1993
Burglar-alarm	D. C. Clapp	417,447	Dec. 31	3412	908	49	2062
Burglar-alarm	A. A. Goucher	414,308	Nov. 12	885	231	49	180
Burglar-alarm	C. Phelps	412,661	Oct. 8	1297	339	49	262
Burglar-alarm	C. C. Reid	413,867	Oct. 29	2977	801	49	619
Burglar-alarm	W. W. Harris	412,669	Oct. 15	1509	417	49	335
Burglar-alarm attachment for windows	T. E. Martin	413,851	Oct. 29	2807	733	49	2623
Burial-casket	E. E. Richards	418,473	Dec. 31	3308	918	49	2059

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.
				Spec.	Dr. &	Vol. Page.
Burner:						
See Absorbent burner.	Hydrocarbon-burner.					
Air and gas burner.	Injector-burner.					
Argand burner.	Lamp-burner.					
Gas-burner.	Oil-burner.					
Gas-generator burn- er.	Petroleum-burner.					
Gas-regulating burner.	Self-generating burner.					
Gascon-fuel burner.	Vapor-burner.					
Gasoline-vapor burner.						
Burner	R. B. Carsley	417,541	Dec. 17	2100	558	49 1787
Burning fluid hydrocarbons. Apparatus for	W. Snyder	412,133	Oct. 1	505	134	49 102
Butter. Apparatus for separating buttermilk from	A. P. Thayer	411,943	Oct. 1	947	63	49 50
Butter, &c. Case for packing	J. P. Raeling	416,751	Dec. 10	897	942	49 1554
Butter-mold	O. A. Bingham	418,488	Dec. 31	3335	994	49 2005
Butter-print	J. W. Culmer	418,272	Dec. 31	3211	839	49 2029
Butter-worker	M. P. E. Stadtmüller	417,507	Dec. 17	2174	576	49 1512
Butter-working tray	J. W. Culmer	418,277	Dec. 31	3210	839	49 2029
Button	K. Dieterich	417,909	Dec. 24	2635	696	49 1910
Button	W. J. Leckie, 3d	429,961	Oct. 15	1733	453	49 351
Button	L. C. H. Mensing	413,126	Dec. 31	3066	945	49 1928
Button	C. Radcliffe	417,939	Dec. 24	2690	709	49 1928
Button	C. Radcliffe	417,940	Dec. 24	2691	709	49 1929
Button	C. Radcliffe	417,941	Dec. 24	2693	709	49 1929
Button	J. T. Thornton	415,639	Nov. 19	2294	507	49 1197
Button	G. S. Tiffany	415,130	Nov. 12	1497	373	49 1029
Button. Cnf.	M. P. Woods	415,709	Nov. 26	2457	641	49 1237
Button-display board	A. E. Gardner	414,415	Nov. 5	513	130	49 84
Button-fastener	W. Duerflinger	417,355	Dec. 17	1796	483	49 1740
Button-fastener	J. P. Hickey	415,459	Nov. 19	1971	512	49 1153
Button-fastener	F. A. Smith, Jr.	413,687	Oct. 29	2927	737	49 850
Button-fastener for gloves, &c. Spring.	J. Kershaw	417,191	Dec. 10	1543	419	49 1623
Button-fastening	W. R. Brock	418,442	Dec. 31	3446	907	49 2021
Button for sleeves or other articles	M. Delahay	413,315	Oct. 22	2282	303	49 465
Button-hole outer	F. Halbehaun	414,528	Nov. 5	536	137	49 848
Button-hole finishing and staying machine.	R. W. Thomson and E. M. Phelps	416,653	Dec. 3	753	204	49 1519
Button-hole strip and making the same	J. Stone	414,692	Nov. 5	551	169	49 809
Button-hole strips. Making	M. P. Bray	411,916	Oct. 1	393	52	49 42
Button-hole strips. Making	J. Stone	415,434	Nov. 19	1910	427	49 1191
Button-hook	T. R. Betzel	413,314	Oct. 22	2281	393	49 464
Button-hook	T. R. Betzel	413,334	Oct. 22	2309	599	49 469
Button-hook	G. W. Mahie	416,092	Dec. 10	1158	317	49 1607
Button-making machines. Feeding device for	H. L. Ellery	413,592	Oct. 22	2548	660	49 515
Button or ornament	P. Kerrigan	412,512	Oct. 8	1073	280	49 217
Button or stud	W. Leeb	416,470	Dec. 3	499	127	49 1464
Button or stud	A. Rammer	413,763	Oct. 29	2927	763	49 800
Button. Spring.	G. H. Fox	415,775	Nov. 26	2471	640	49 1240
Button-strip	J. H. Haviland and T. A. Mitchell	413,569	Oct. 22	2561	665	49 518
Buttoner	T. W. G. Cook	413,034	Oct. 15	1844	482	49 373
Cabinet, commode, wardrobe, and invalid-chair. Com- bined	A. Hardie	414,369	Nov. 5	195	48	49 777
Cabinet-stand for sick-rooms	J. C. McDowell	418,292	Dec. 31	3109	815	49 2009
Cable-carrier	A. B. Arnold	414,481	Nov. 5	463	117	49 834
Cable coupling	B. H. Wesslan	416,133	Nov. 26	2635	794	49 1320
Cable coupling. Underground.	B. H. Wesslan	416,144	Nov. 26	2636	794	49 1320
Cable curve. Carrier-track	S. D. Northcutt	415,531	Nov. 19	2133	554	49 1167
Cable-grip	J. W. Gentry	416,673	Dec. 3	785	215	49 1525
Cable-grip	J. Volk	413,584	Oct. 22	2660	691	49 538
Cable-grips. Counter-bar for	V. F. Lynch	417,875	Dec. 24	2894	674	49 1899
Cable-gripping device	T. H. Ross	419,671	Oct. 8	1315	343	49 265
Cable-sheaves. Oiling and adjusting device for	W. Phenix	415,792	Nov. 26	2495	652	49 1245
Cable terminal head and protector	E. B. Baker	413,429	Oct. 22	2440	634	49 495
Cables. Joint for coupling underground	G. W. Knapp	415,752	Nov. 26	2445	647	49 1253
Cables. Joint for coupling underground	B. H. Wesslan and G. Trautwein	415,751	Nov. 26	2443	638	49 1254
Cables. Making lateral connections in underground.	S. P. Denison	413,134	Oct. 15	1993	590	49 402
Caisson. Pneumatic	W. M. Patton	414,344	Nov. 5	102	24	49 758
Cake-cutter	H. Sturdevant	412,160	Oct. 1	457	119	49 92
Cake-fork	E. and J. Barlass	416,250	Dec. 3	158	39	49 1306
Cake-mixer	N. I. Barron	415,093	Nov. 26	2638	690	49 1274
Cake or cracker box	F. Miller	416,414	Dec. 3	291	104	49 1447
Calculating-machine	M. Mayer	417,261	Dec. 17	1646	446	49 1713
Calculating, recording, and numbering machine	H. G. O'Neill	413,262	Oct. 22	2290	587	49 460
Calendar	B. F. Billings	416,027	Nov. 26	2849	599	49 1319
Calendar	J. H. Hughes	413,268	Oct. 22	2366	612	49 472
Calendars and memoranda combined. Holder for.	H. P. Smith	417,106	Dec. 10	1414	386	49 1658
Calipers. Micrometer	C. T. Jennings	413,516	Oct. 22	2570	665	49 520
Calipers or dividers	H. Sturdevant	414,054	Nov. 12	1162	306	49 979
Calk sharpener. Horseshoe	H. L. Boyle	416,294	Dec. 3	306	97	49 1441
Cam	J. G. Kirker	413,523	Oct. 22	2579	668	49 521
Camera:						
See Photographic camera.						
Camera-box	J. W. Freedle	417,863	Dec. 24	2570	677	49 1897
Camera plate-holder	J. M. Rhodes	418,065	Dec. 24	2672	735	49 1956
Camera-shutter	T. O. Hegg	418,318	Dec. 31	3275	855	49 2042
Can:						
See Fluid-can.	Oil-can.					
Force-can.	Sheet-metal can.					
Milk-can.						
Can	J. W. Wallace and W. Spencer	418,254	Dec. 31	3171	831	49 2021

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Vol.	Page.
				Spec.	De't.		
Can and can-closure.	R. M. Spencer	412,134	Oct. 1	597	134	49	102
Can-capping machine.	W. S. Bacon	415,160	Nov. 12	1515	301	49	1037
Can-feeding apparatus.	G. D. Loring	418,021	Dec. 31	3741	977	49	2136
Can-filling machine.	W. L. Stevens and M. B. Ayars	417,686	Dec. 17	3297	698	49	1835
Can-heading machine.	E. E. Angell	412,584	Oct. 8	1175	399	49	238
Can-heading machine.	E. E. Angell	415,993	Nov. 26	3797	733	49	1399
Can-heading machine.	E. E. Angell	415,994	Nov. 26	3799	733	49	1399
Can-heading machine.	C. W. Sleeper	412,532	Oct. 8	1199	734	49	238
Can-heading machines. Head-holder for.	E. E. Angell	416,337	Dec. 3	577	156	49	1484
Can-heading machines. Head-holding jaws for.	E. E. Angell	415,992	Nov. 26	3795	732	49	1399
Can-lid holder.	A. Don	415,006	Nov. 26	3770	774	49	1342
Can lock. Milk.	J. D. Cnel	410,940	Nov. 26	2867	754	49	1336
Can-machines. Delivery attachment for.	J. Black	417,856	Dec. 24	2561	674	49	1895
Can-machines. Horn for.	E. E. Angell	414,902	Oct. 29	3294	657	49	675
Can-making machine.	A. A. Tripold and B. Blumenschein	416,432	Dec. 3	415	113	49	1453
Can-opener.	O. W. Ekman	417,010	Dec. 10	1398	346	49	1639
Can-opener.	A. Hunter	417,032	Dec. 10	1393	355	49	1636
Can-stopper.	H. Pearl	413,546	Oct. 22	3603	675	49	586
Can-testing machine.	W. Hipperling	415,300	Nov. 19	1568	404	49	1055
Can-testing machine. Tin.	W. Hipperling	415,301	Nov. 19	1570	404	49	1055
Can-wiping machine.	C. A. Burt	413,168	Oct. 22	3055	403	49	420
Can-wiping machine.	P. D. Cummings	416,212	Dec. 3	91	35	49	1386
Cans. Apparatus for drying tin.	W. Hipperling	415,336	Nov. 19	1848	441	49	1108
Cans. Expansion-clamp for sheet-metal.	C. Long and J. B. Osborn	415,544	Nov. 19	2114	549	49	1163
Cans or jars. Lining for metal.	E. Haas	417,342	Dec. 17	1616	439	49	1707
Cans or jars. Lining for metal.	P. Brink	415,009	Nov. 19	2236	560	49	1153
Canner. Fruit.	M. A. Cartm	411,851	Oct. 1	131	31	49	30
Canal.	C. Hoffmann	416,013	Dec. 3	983	187	49	1508
Candlestick.	H. Becker	416,045	Nov. 26	2881	753	49	1335
Candlestick.	J. P. Nessel	414,917	Nov. 12	1196	292	49	968
Candlestick. Hydraulic.	J. P. Nessel	416,418	Dec. 3	397	105	49	1448
Candy-holder.	M. S. Hershey	412,090	Oct. 1	447	116	49	90
Candy-tray.	E. F. Landis	417,049	Dec. 10	1349	363	49	1641
Cane and camp stool. Combined.	W. Flann	413,963	Oct. 29	3321	841	49	662
Cane. Combination walking.	W. Flann and A. G. Brandt	412,370	Oct. 8	878	239	49	1718
Cane-cutter.	R. R. Wilson	415,234	Nov. 19	1612	415	49	1064
Cane. Means for loading and transporting.	P. C. Marsh	415,213	Nov. 19	1587	404	49	1064
Cane reeds for weaving. Preparing.	A. A. Florich	412,777	Oct. 15	1418	370	49	292
Cane-shaver. Plant.	E. Maurin	413,970	Oct. 15	1895	496	49	353
Canister. Grocer's.	W. Smith and C. H. Dill	416,042	Nov. 26	2878	752	49	1335
Cannon. Means for loading and transporting.	G. B. Webb	417,800	Dec. 24	2478	653	49	1879
Cannon and supply system. Pneumatic.	W. Bartlett	412,717	Oct. 15	1391	364	49	267
Capstan.	E. H. Whitney	415,861	Nov. 12	1360	355	49	660
Capsule-trimming machine.	J. L. and J. E. Warren	413,889	Oct. 29	3321	852	49	669
Car and motor for electric railways. Suspended.	L. J. Cody	415,617	Nov. 19	2296	523	49	1136
Car bearing. Railway.	L. K. Jewett	418,928	Dec. 24	3819	744	49	1945
Car-body frame. Railway.	D. L. Barnes	418,151	Dec. 31	3628	793	49	1992
Car body. Railway.	M. N. Forney	414,055	Oct. 29	3338	870	49	686
Car-brake.	C. A. Cook	416,906	Dec. 10	1236	338	49	1623
Car-brake.	C. A. Cook	416,907	Dec. 10	1238	339	49	1624
Car-brake.	C. A. Cook	416,908	Dec. 10	1240	340	49	1624
Car-brake.	T. S. E. Dixon	414,108	Oct. 29	3443	896	49	709
Car-brake.	J. B. Z. Dumas	415,996	Nov. 26	3793	735	49	1310
Car-brake.	R. Hawes	412,747	Oct. 15	1431	373	49	305
Car-brake.	J. H. Hicks	414,537	Nov. 5	546	140	49	850
Car-brake.	H. S. Hooper	417,346	Dec. 17	1621	440	49	1708
Car-brake.	J. H. Hicks	412,392	Oct. 8	897	224	49	122
Car-brake.	B. F. Massey	412,640	Oct. 8	1267	350	49	255
Car-brake.	A. P. Massey	413,452	Oct. 22	2475	643	49	501
Car-brake.	F. Miller and G. Gregory	412,530	Oct. 8	1063	293	49	219
Car-brake.	C. V. Rote	417,394	Dec. 17	1853	496	49	1750
Car-brake.	C. V. Rote	414,390	Nov. 19	1668	379	49	961
Car-brake.	C. V. Rote	414,891	Nov. 12	1090	270	49	961
Car-brake.	C. V. Rote	416,749	Dec. 10	892	240	49	1554
Car-brake.	C. V. Rote	417,841	Dec. 24	2539	681	49	1891
Car-brake.	E. T. Schoonmaker	413,330	Oct. 22	2603	598	49	468
Car-brake.	F. M. Smiley	412,935	Oct. 15	1698	463	49	343
Car-brake and starter.	J. Ross	414,589	Nov. 5	630	165	49	865
Car-brake. Automatic.	J. N. Scarborough	413,504	Oct. 22	2631	683	49	532
Car-brake. Automatic.	J. F. Stephens	417,523	Dec. 17	2056	648	49	1700
Car-brake. Cable.	J. M. Bradbury and A. B. Griswold	417,701	Dec. 24	2924	613	49	1850
Car-brake. Electric.	L. Pungst	413,960	Oct. 29	3218	841	49	661
Car-brake. Fluid-pressure.	F. P. Massey	412,214	Nov. 19	1568	409	49	1059
Car-brake banger.	F. G. Samsel	417,853	Dec. 24	2706	712	49	1922
Car-brake or dead-block.	M. A. Morse	417,330	Dec. 17	1747	471	49	1732

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.
				Spec.	Dr. Et.	
Car brake. Railway.	G. M. Brill	418,438	Dec. 31	3460	905	49 2680
Car-buffer.	F. S. Way	413,423	Oct. 22	2434	633	49 494
Car-card-clip. Railway.	P. Robinson	412,899	Oct. 15	1646	429	49 333
Car. Cinders.	J. Bowen	418,306	Dec. 31	3261	851	49 2039
Car. Combined sleeping and parlor	H. W. Libbey	411,817	Oct. 1	160	17	49 15
Car coupler. Street.	T. L. Johnson	416,367	Dec. 3	323	84	49 1432
Car-coupling.	C. A. Anderson	414,001	Oct. 29	3283	837	49 674
Car-coupling.	J. Bender	413,868	Nov. 5	277	70	49 794
Car-coupling.	J. M. Bouck	415,173	Oct. 22	2074	537	49 423
Car-coupling.	N. Boudreau.	415,701	Nov. 26	2267	618	49 1220
Car-coupling.	P. Brown	415,229	Nov. 19	1617	416	49 1065
Car-coupling.	W. M. Bunce	413,845	Oct. 29	3940	792	49 622
Car-coupling.	P. J. Bures	412,068	Oct. 1	417	108	49 84
Car-coupling.	P. Campbell	412,597	Oct. 8	1138	314	49 242
Car-coupling.	J. C. Chrisman	415,705	Nov. 26	2373	619	49 1221
Car-coupling.	A. Coble and J. H. Momms	413,173	Oct. 22	2064	537	49 422
Car-coupling.	J. F. Cook	416,640	Dec. 31	3770	984	49 2142
Car-coupling.	J. Comp	416,668	Dec. 3	779	213	49 1534
Car-coupling.	J. H. Crittenden	411,980	Oct. 1	291	76	49 60
Car-coupling.	A. Y. Cronk	417,991	Dec. 24	2762	738	49 1935
Car-coupling.	A. Devo and W. S. Schroeder	414,573	Oct. 15	1614	422	49 328
Car-coupling.	R. H. Dowling	414,146	Oct. 29	3497	908	49 730
Car-coupling.	R. H. Dowling	415,623	Nov. 19	2849	587	49 1119
Car-coupling.	A. Drengson	415,449	Nov. 19	1952	507	49 1129
Car-coupling.	R. M. Dry	414,596	Nov. 12	1100	283	49 963
Car-coupling.	C. W. Duncan	417,005	Dec. 10	1362	345	49 1628
Car-coupling.	J. H. Eakins	413,179	Oct. 22	2071	539	49 423
Car-coupling.	E. P. Eastwick, Jr.	414,890	Nov. 12	1102	283	49 963
Car-coupling.	E. P. Eastwick, Jr.	417,006	Dec. 10	1963	345	49 1628
Car-coupling.	P. Edmunds and R. Engberg	418,508	Dec. 31	3567	932	49 2102
Car-coupling.	B. G. Follansbee	415,194	Nov. 19	1539	402	49 1053
Car-coupling.	A. Fox	412,380	Oct. 8	879	229	49 178
Car-coupling.	F. A. Fox	413,044	Oct. 15	1566	406	49 375
Car-coupling.	S. J. Freeman	412,492	Oct. 8	1049	272	49 211
Car-coupling.	G. W. Gerking and E. S. Lewis	411,891	Oct. 1	171	44	49 35
Car-coupling.	L. B. Harris	414,531	Nov. 5	1540	398	49 819
Car-coupling.	I. L. and C. F. R. Harry	418,616	Dec. 29	3720	975	49 2135
Car-coupling.	I. Hazelton	412,73	Oct. 8	1269	356	49 275
Car-coupling.	R. T. Henry	418,564	Dec. 31	3656	856	49 2120
Car-coupling.	P. H. Hix	418,365	Dec. 31	3657	857	49 2120
Car-coupling.	C. C. Hodges	413,182	Oct. 22	2073	510	49 424
Car-coupling.	I. M. Jones	415,285	Nov. 19	1717	447	49 1084
Car-coupling.	E. Lemasters	414,648	Nov. 5	720	186	49 892
Car-coupling.	E. J. Leyburn	414,230	Nov. 5	79	19	49 753
Car-coupling.	M. J. Lorraine	415,309	Nov. 19	1738	452	49 1088
Car-coupling.	M. J. Lorraine and F. P. Wherry	418,576	Dec. 31	3673	960	49 2129
Car-coupling.	D. F. MacCarthy	411,819	Oct. 1	63	17	49 13
Car-coupling.	R. Matheson	412,519	Oct. 8	1061	282	49 219
Car-coupling.	R. P. McBride	413,391	Oct. 22	2069	546	49 429
Car-coupling.	W. C. McChord	411,897	Oct. 1	151	42	49 64
Car-coupling.	W. McConway	412,405	Oct. 8	913	239	49 185
Car-coupling.	P. McEntee	413,727	Oct. 29	2877	750	49 580
Car-coupling.	A. O. Niedlander	416,640	Dec. 3	733	198	49 1516
Car-coupling.	H. Niemann	414,116	Oct. 29	3457	898	49 711
Car-coupling.	F. Parlee	412,536	Oct. 8	1102	269	49 224
Car-coupling.	C. H. Peard	414,919	Nov. 12	1128	293	49 969
Car-coupling.	W. J. Porto	413,549	Oct. 22	2076	676	49 526
Car-coupling.	R. A. Randlett and F. W. Smith	415,554	Nov. 19	1776	461	49 1065
Car-coupling.	F. Robert	414,920	Nov. 12	1129	294	49 969
Car-coupling.	J. Robinson and C. Weeks	417,368	Dec. 17	1816	488	49 1744
Car-coupling.	H. Severance	417,370	Dec. 17	1818	488	49 1744
Car-coupling.	D. Shaw	418,228	Dec. 31	3151	825	49 2017
Car-coupling.	J. Shultes	415,313	Nov. 19	1742	438	49 1089
Car-coupling.	W. T. Sims	417,518	Dec. 17	2048	546	49 1788
Car-coupling.	J. Skinner	417,103	Dec. 10	1410	385	49 1658
Car-coupling.	J. Slesinger	413,571	Oct. 22	2044	696	49 535
Car-coupling.	G. W. Smith	416,187	Dec. 3	151	42	49 1360
Car-coupling.	H. A. Snyder	418,425	Dec. 31	3441	899	49 2076
Car-coupling.	H. Sommerfeld	415,225	Nov. 19	1602	413	49 1062
Car-coupling.	H. E. Sorn	416,439	Dec. 3	1412	111	49 1452
Car-coupling.	R. H. Strapp	417,291	Dec. 17	1694	437	49 1722
Car-coupling.	E. F. Stephens	417,522	Dec. 17	2054	548	49 1730
Car-coupling.	A. L. Stover	413,102	Oct. 15	1940	507	49 291
Car-coupling.	J. B. Thomas	418,049	Dec. 24	2913	765	49 1963
Car-coupling.	J. E. Thompson	418,249	Dec. 31	3705	968	49 2129
Car-coupling.	J. Timms	414,268	Nov. 5	131	31	49 763
Car-coupling.	J. Timms	417,547	Dec. 17	1763	479	49 1737
Car-coupling.	J. B. Titus	414,607	Nov. 5	658	171	49 871
Car-coupling.	T. H. Walsh	417,646	Dec. 24	2846	671	49 1892
Car-coupling.	C. C. Warren	412,811	Oct. 15	1518	397	49 311
Car-coupling and uncoupling device	J. N. Scarborough	412,124	Oct. 1	464	127	49 98
Car-coupling-link adjuster	T. H. Gilham, W. C. Eckert, and L. Gilham	412,381	Oct. 8	881	220	49 179
Car-coupling. Street.	G. R. Allen and E. J. Wallace	413,838	Oct. 29	3333	790	49 620
Car dead-block.	C. T. Schorn	416,506	Dec. 3	524	142	49 1474
Car-door.	C. Bossard	411,850	Oct. 1	110	28	49 36
Car-door fastener.	A. B. Mouck	418,293	Dec. 31	3220	845	49 2032
Car-door. Freight.	C. H. and J. P. Emery	415,668	Nov. 19	2300	603	49 1300
Car-door.	D. Manuel	416,793	Dec. 10	955	259	49 1565

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & Vol.	Page.	
Car door. Grain.....	C. D. Pettis.....	415,468	Nov. 19	1868	515	49	1126
Car door. Grain.....	E. B. Seales.....	412,305	Oct. 1	610	150	49	1182
Car-door lock.....	H. E. Newton.....	416,486	Dec. 3	495	134	49	1409
Car-door opener and closer.....	M. Miles.....	412,197	Oct. 1	600	156	49	120
Car-door retainer and seal.....	A. Roelofs.....	412,795	Oct. 15	1498	390	49	306
Car-doors. Tightening and fastening device for.....	J. C. Wanda.....	412,939	Oct. 15	1702	444	49	344
Car draw-bar. Railway.....	D. L. Barnes.....	415,150	Dec. 31	3025	785	49	1991
Car draw-head.....	J. Stephenson.....	413,966	Oct. 22	2194	572	49	448
Car driving-gear.....	E. Samuel.....	412,298	Oct. 8	754	196	49	155
Car. Dumping.....	G. and E. J. Bogusch.....	416,393	Dec. 3	364	96	49	1441
Car. Dumping.....	W. J. Bostain.....	416,494	Dec. 10	1108	302	49	1506
Car. Dumping.....	E. E. Dwight.....	417,239	Dec. 17	1610	437	49	1706
Car. Dumping.....	J. Voegtline and G. Bergstrom.....	415,484	Nov. 19	2615	524	49	1143
Car. Electric railway.....	F. J. Sprague.....	413,151	Oct. 15	2021	587	49	407
Car. Freight.....	C. H. Kimball.....	412,370	Oct. 8	714	186	49	148
Car-gate.....	O. Wehber and F. A. Pratt.....	416,768	Dec. 10	918	247	49	1558
Car-gate. Railway.....	J. B. Wood.....	411,974	Oct. 1	283	73	49	57
Car-gate. Railway.....	J. B. Wood.....	415,362	Dec. 31	3349	873	49	2056
Car guard. Cable.....	P. F. Dundon.....	417,477	Dec. 17	1978	527	49	1776
Car. Hand.....	I. E. Stump.....	413,742	Oct. 29	2900	754	49	594
Car-heater.....	M. H. Morley.....	413,284	Oct. 8	737	181	49	152
Car-heater and pipe-connection.....	E. P. Sartell.....	417,447	Dec. 17	1923	513	49	1765
Car-heaters. Pipe-coupling for.....	E. S. Graver.....	418,408	Dec. 31	3411	892	49	3070
Car-heating apparatus. Railway.....	W. C. Baker.....	414,915	Oct. 1	202	52	49	41
Car-heating apparatus. Steam.....	J. L. Easley and M. H. Whalen.....	411,985	Oct. 1	300	77, 78	49	61
Car-heating device.....	W. Vogel.....	416,877	Dec. 10	1082	291	49	1591
Car-heating system.....	C. L. Kline.....	417,390	Dec. 17	1848	496	49	1749
Car-heating system.....	C. L. Kline.....	417,391	Dec. 17	1849	496	49	1750
Car journal-box. Railway.....	P. Browley.....	413,732	Oct. 15	1401	366	49	289
Car-journals. Device for lubricating, cooling, and cleaning.....	J. K. Hardwicke.....	415,910	Nov. 26	2064	609	49	1380
Car-lighting. Electric.....	S. H. Barrett.....	413,160	Oct. 22	2044	531	49	418
Car. Metallic railway.....	E. W. M. Hughes.....	417,786	Dec. 24	2459	648	49	1870
Car-mover.....	E. Dederick.....	412,732	Oct. 15	1412	369	49	291
Car-mover.....	L. A. Fort.....	413,750	Oct. 29	2907	757	49	306
Car-mover.....	L. B. Gifford.....	413,228	Oct. 22	2144	557	49	437
Car-mover.....	R. Gilham and M. S. Towson.....	417,750	Dec. 24	2450	845	49	1874
Car or other seat.....	H. S. Hale.....	417,823	Dec. 24	2513	661	49	1886
Car or truck.....	H. Aiken.....	413,705	Oct. 29	2951	743	49	584
Car-pedestal.....	W. Behrens.....	416,773	Dec. 10	925	250	49	1559
Car-platform attachment.....	L. Roeth.....	417,385	Dec. 17	1854	497	49	1750
Car. Railway.....	J. A. Brill.....	415,441	Dec. 31	3465	906	49	2081
Car. Railway.....	P. D. Whitehead.....	417,136	Dec. 10	1451	394	49	1665
Car. Railway freight.....	C. Mackall.....	412,964	Oct. 15	1736	454	49	351
Car-roof.....	A. P. Le Gros.....	416,928	Dec. 10	1154	316	49	1606
Car-roof.....	P. H. Murphy.....	414,669	Oct. 29	3390	881	49	697
Car safety device. Railway.....	A. A. Cameron.....	416,152	Dec. 3	6	1, 2	49	1369
Car sanding apparatus. Railway.....	H. Müller, Jr., and M. A. Cumming.....	415,402	Oct. 8	908	338	49	114
Car-seat.....	H. S. Hale.....	417,822	Dec. 24	2510	661	49	1885
Car-seat lock.....	W. Coble, Jr.....	414,393	Nov. 5	166	41	49	770
Car-seats. Removable head-rest for.....	W. Hill.....	415,326	Nov. 19	1764	458	49	1094
Car service. Tower-wagon for electric street.....	T. L. Johnson.....	414,222	Nov. 5	49	16	49	752
Car-signal. Device for an electric.....	J. P. Runkel.....	417,842	Dec. 24	2541	609	49	1891
Car-stake.....	J. C. Walker and G. D. Bradford.....	414,613	Nov. 5	669	174	49	873
Car-starter.....	C. T. Cleveland.....	416,994	Dec. 10	1232	338	49	1623
Car-starter.....	E. Degerholm.....	412,022	Oct. 1	355	92	49	71
Car-starter.....	P. Flood.....	415,835	Nov. 26	2550	667	49	1327
Car-starter.....	J. H. Helzer.....	414,312	Nov. 5	139	49, 50	49	778
Car-starter.....	J. J. A. Miller.....	415,737	Nov. 26	2406	639	49	1327
Car-starter.....	S. J. Pearsall.....	415,924	Nov. 26	2700	705	49	1387
Car-starter and brake.....	W. A. Barker.....	414,153	Nov. 5	7	2	49	740
Car-step. Extensible.....	J. F. and J. F. Wood.....	417,896	Dec. 24	2619	690	49	1906
Car step. Railway.....	A. B. Allen.....	413,312	Oct. 22	2279	593	49	464
Car. Stock.....	W. G. Avery.....	415,404	Nov. 19	1877	488	49	1114
Car. Stock.....	G. D. Barton.....	414,013	Oct. 29	3309	862	49	680
Car. Stock.....	G. D. Burton.....	414,014	Oct. 29	3311	863	49	681
Car. Stock.....	D. B. Davis and J. J. Fisher.....	415,767	Nov. 26	2465	643	49	1339
Car. Stock.....	M. D. Moore.....	415,878	Nov. 26	2616	644	49	1369
Car. Stock.....	H. W. Smith.....	415,255	Nov. 19	1644	435	49	1070
Car. Stock.....	R. C. Vidler and E. R. M. Pierce.....	418,629	Dec. 31	3733	980	49	2139
Car stopper. Cable.....	F. Espel.....	414,304	Nov. 5	187	46, 47	49	775
Car. Street.....	J. A. Brill.....	415,494	Dec. 31	3542	926	49	2096
Car uncoupling device. Railway.....	H. B. Janney.....	413,259	Oct. 8	699	184	49	145
Car-unloading attachment.....	J. S. Harshman.....	413,783	Oct. 29	2957	771	49	645
Car-ventilating device.....	H. L. Morrell.....	417,575	Dec. 17	2140	571	49	1805
Car-ventilation.....	E. P. Brown.....	419,913	Oct. 15	1606	435	49	337
Car-ventilator.....	J. W. Fowler.....	415,360	Nov. 19	1816	472	49	1101
Car-ventilator.....	O. H. Taylor.....	413,816	Oct. 29	3003	782	49	614

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.
				Spec.	Dr. &c.		Vol.	Page.
Car-vestibule	J. Krehbiel	417,567	Dec. 17	2132	567	49 1803
Car. Vestibule	T. W. Moore	417,496	Dec. 17	2009	537	49 1781
Car. Vestibule railway	R. Solano	413,574	Oct. 29	3091	865	49 639
Car. Vestibuled railway	A. G. Leonard	414,928	Nov. 5	76	17, 18	49 153
Car-wheel	J. Dunstedter	417,998	Dec. 24	2777	732	49 1937
Car-wheel	W. Joalin	414,223	Nov. 5	70	16	49 752
Car-wheel	T. Morrissey and J. Doyle	416,637	Dec. 3	329	197	49 1515
Car-wheel	J. O. Putridge	416,009	Nov. 26	2922	702	49 1334
Car-wheel	R. Stalter	413,740	Oct. 29	2986	754	49 593
Car wheel and axle	J. Grady	416,161	Dec. 3	20	7	49 1373
Car-wheel-balancing machine	W. P. Barclay	412,360	Oct. 8	551	222	49 173
Car-wheels. Machine for making	H. F. Mann	414,433	Nov. 5	370	91	49 814
Car-window sash. Street	P. M. Kling	417,647	Dec. 17	2241	585	49 1825
Cars. Air-brake apparatus for	R. W. Bayley	412,685	Oct. 8	1350	351	49 373
Cars. Automatic station-indicator for railway	H. G. Krasky, E. E. Lommatzsch, and J. Kueffer	414,885	Nov. 12	1061	277	49 959
Cars by steam and hot water. System of heating	R. D. Kimball	416,844	Dec. 10	1035	279	49 1581
Cars. Cable attachment for dump	G. C. Eaton	416,451	Dec. 3	445	121	49 1459
Cars. Card-holder for	W. E. Thurber	418,250	Dec. 31	3167	830	49 2020
Cars. Center-bearing plate for	C. T. Schoen	416,373	Dec. 3	181	48	49 1404
Cars. Center-bearing plate for	C. T. Schoen	416,374	Dec. 3	182	49	49 1404
Cars. Contact trolley for electric-railway	J. Mitchell	413,287	Oct. 22	2239	521	49 456
Cars. Device for dumping	C. F. Wilson	415,428	Nov. 19	3021	585	49 1144
Cars. Dog attachment for log	R. J. Thompson	416,128	Nov. 26	3036	789	49 1335
Cars. Draw-bar stop for railway	G. W. Cushing	412,843	Oct. 15	1561	407	49 318
Cars. Draw-gear for railway	A. W. Van Dorston	416,522	Dec. 3	557	151	49 1480
Cars. Draw-hook for street	C. E. Garey	418,454	Dec. 31	3480	911	49 2063
Cars. Electric brake mechanism for	W. H. Darling	418,402	Dec. 31	3401	888	49 2068
Cars. Electric motor for railway	W. M. McDougall	412,928	Oct. 8	1092	287	49 222
Cars. Equalizing device for railway	J. A. Brill	418,440	Dec. 31	3463	905	49 2060
Cars. Fender-guard attached to	R. M. Edwards	413,040	Oct. 15	1849	484	49 374
Cars. Floor for railway	D. H. Talbot	414,927	Nov. 12	1140	298	49 972
Cars. Grip-holding arch-bar for cable	J. Stephenson	411,907	Oct. 1	193	49	49 39
Cars. Gripping device carrier and attachments thereto for cable-railway	A. Troyman	414,389	Nov. 5	132	32	49 761
Cars. Hand-power motor for street	J. N. Johnson	412,922	Oct. 15	1081	439	49 340
Cars. Hinged pan for protecting electric motors for	T. L. Johnson	416,366	Dec. 3	323	84	49 1432
Cars or other vehicles. Wheel-fender for tram	L. Porri	417,065	Dec. 10	1382	378	49 1650
Cars. Pipe-connection for railway	G. A. Houston	415,273	Nov. 19	1673	433	49 1075
Cars. Sand-box for	E. I. Robinson	414,997	Nov. 12	1244	324	49 992
Cars. Sealing attachment for	S. F. Bates	414,295	Nov. 12	1097	282	49 962
Cars. Steam-heater for railway	S. P. Gold	412,743	Oct. 15	1425	373	49 584
Cars. Switch-operating device for street	D. J. McOsker	413,435	Oct. 22	2478	643	49 502
Cars. System for electric conductors for electric	C. A. Jackson	411,989	Oct. 1	305	79	49 62
Cars. System of heating railway	J. Elder	415,907	Nov. 26	3059	697	49 1279
Ca. s. Trolley attachment for electric railway	J. M. Andersen	412,157	Oct. 1	540	142	49 109
Carbon-clamp for arc lights	A. P. Seymour	411,936	Oct. 1	231	58	49 47
Carbon dioxide. Making	S. Cabot	415,690	Nov. 12	1371	338	49 1017
Carbureting compound	T. B. Wellman	411,912	Oct. 1	106	50	49 41
Carburetor for gas-engines	D. S. Regan	415,578	Nov. 26	2777	727	49 1305
Carburetors. Device for supplying and measuring air for	E. B. Badlam	414,276	Nov. 5	143	36	49 766
Card-board box	P. J. Müller	412,640	Oct. 8	1993	335	49 259
Card. Business	W. W. Caldwell	415,380	Nov. 19	1840	480	49 1107
Card case and cribbage-board. Combined playing	S. Bretzfeld	414,490	Nov. 5	475	120	49 837
Card-clothing together and to the grinding-cylinder	W. Harris	413,445	Oct. 22	2463	640	49 499
Cardholder	A. McKenzie and A. R. Gibson	415,393	Nov. 19	1860	484	49 1100
Card. Sample	J. Samuels	413,094	Oct. 15	1926	504	49 389
Card-setting machines. Center for	S. Midgley	414,815	Nov. 12	963	250	49 938
Cards and paper. Apparatus for finishing the edges of	E. J. Smith	416,869	Dec. 10	1069	288	49 1589
Cards. Foundation for	J. Mosely	415,118	Nov. 12	1406	367	49 1025
Cards. Machine for treating	C. A. Wright	413,605	Oct. 29	3270	854	49 671
Cards. Top-stripping winder for revolving flat	C. A. Mason	415,390	Nov. 19	1857	455	49 1109
Carding-engine feeding-machine	L. A. Peckham	416,123	Nov. 26	3024	787	49 1333
Carding-engine feeding mechanism	G. A. Allison	414,361	Nov. 5	207	67	49 792
Carding-engine feeding mechanism	L. A. Peckham	415,651	Nov. 19	2243	506	49 1196
Carding-engine feeding mechanism	L. A. Peckham	415,694	Nov. 19	2336	610	49 1306
Carding-machines. Feeding mechanism for	W. Ferguson	418,558	Dec. 31	3643	953	49 2117
Carpenters' use. Combination-tool for	G. W. Ansley and C. J. Schenck	414,875	Nov. 12	1067	274	49 936
Carpet-heating machine	A. B. Collen	413,387	Oct. 22	2391	619	49 483
Carpet-cleaning machine	J. Hotherhall	418,286	Dec. 31	3222	842	49 2031
Carpet-exhibitor	N. H. Traver	417,608	Dec. 17	2185	521	49 1814
Carpet fabric	J. Jagger	418,412	Dec. 31	3419	892	49 2072
Carpet fabric. Two-ply ingrain	F. W. Read	417,090	Dec. 10	1301	380	49 1654
Carpet-holder	E. R. Barnes	417,767	Dec. 24	2432	640	49 1570
Carpet-stretcher	A. A. Brewer	417,627	Dec. 17	2216	529	49 1821
Carpet-stretcher	C. F. Cooper	412,842	Oct. 15	1560	407	49 318
Carpet-stretcher	D. A. Foster and T. L. Barker	416,725	Dec. 10	863	232	49 1545
Carpet-stretcher	F. J. Swart	416,383	Dec. 3	351	93	49 1433

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Div.	Vol.	Page.
Carpet-stretcher	A. M. Walradt and G. A. Cobban	414,737	Nov. 12	859	222	49	917
Carpet-sweeper	W. J. Drew	415,903	Nov. 26	3654	696	49	1278
Carpet-sweeper	W. J. Drew	415,280	Dec. 31	3212	840	49	3029
Carpet-sweeper	G. W. Gates	412,219	Oct. 1	636	166	49	137
Carpet-sweeper	H. A. Gore and H. W. Ku Ton	416,101	Nov. 26	2977	775	49	1344
Carpet-sweeper	C. K. Stinson	415,478	Nov. 19	2002	518	49	1140
Carriage adapted to run on wire cables	W. Y. Cruikshank	413,389	Oct. 22	3295	621	49	484
Carriage and sled. Combined	E. B. Whitney	412,806	Oct. 15	1595	416	49	325
Carriage-how socket	W. J. Platt	412,291	Oct. 8	743	194	49	153
Carriage. Child's	W. Jones	413,802	Oct. 29	3983	777	49	610
Carriage. Child's	H. Pladeck	414,577	Nov. 5	605	156	49	899
Carriage. Child's	M. C. Root	412,041	Oct. 1	378	97	49	76
Carriage. Child's	C. Rousseau	416,750	Dec. 10	895	541	49	1554
Carriage. Child's	H. H. Speck	417,109	Dec. 10	1417	367	49	1659
Carriage corner-iron. Process of and apparatus for manufacturing	E. C. Porter	412,603	Oct. 8	1299	340	49	262
Carriage-coupling	E. I. Tennant	414,341	Nov. 5	238	60	49	786
Carriage-curtain attachment	D. Argerbright	416,540	Dec. 3	583	159	49	1245
Carriage-curtain fastening device	F. A. Brandenburg	416,664	Dec. 3	771	211	49	1523
Carriage. Folding baby.	C. Miller	415,528	Dec. 31	3604	940	49	2110
Carriage-gear	W. Boughton	416,436	Dec. 3	422	114	49	1454
Carriage-gear	G. W. Farrell	417,480	Dec. 17	1982	526	49	1777
Carriage running-gear	L. M. Fitch	417,517	Dec. 17	1739	692	49	1726
Carriage-seat	M. Cook	417,990	Dec. 24	2161	728	49	1934
Carriage-seat	R. M. Stivers	416,872	Dec. 10	1073	290	49	1589
Carriage-seat rail	W. F. Head	416,400	Dec. 31	3491	913	49	3085
Carriage-seats. Automatic recorder for	C. A. Anderson	414,963	Nov. 12	1196	312	49	982
Carriage-step	J. Pendergast	415,769	Nov. 26	2493	651	49	1344
Carriage-top	F. R. Merrell and O. M. Thomas	415,875	Nov. 26	2610	683	49	1268
Carriage-top prop.	A. A. Lines	417,338	Dec. 17	1745	470	49	1732
Carriage-wheel fender.	R. Brown	415,021	Nov. 12	1277	324	49	998
Carrier:							
See Belt-carrier.	Ladle-carrier.						
Brick-carrier.	Parcel-carrier.						
Cable-carrier.	Pipe-carrier.						
Cash-carrier.	Sheaf-carrier.						
Cash and package carrier.	Straw-carrier.						
Egg-carrier.	Threshing-machine straw-carrier.						
Glass-carrier.	Truce-carrier.						
Hay-carrier.							
Carrier	J. L. Taplin	413,635	Oct. 22	2741	710	49	555
Carrying apparatus	J. O'Keefe	412,976	Oct. 15	1750	457	49	354
Cart. Ash	P. Bourne	415,895	Nov. 26	2640	691	49	1275
Cart. Coal	J. R. Sagie	412,461	Oct. 22	2485	645	49	503
Cart. Dumping	F. T. Lynch	414,947	Nov. 12	1170	305	49	977
Cart. Garbage	H. S. Brewington and J. W. Linton	413,222	Oct. 22	2133	554	49	435
Cart. Hand	E. H. Mott	412,329	Dec. 31	3309	895	49	2049
Cart. Road	H. G. Lea	411,803	Oct. 1	129	33, 34	49	27
Cart. Road	W. B. Main and J. G. Burnaugh	415,725	Nov. 26	2403	628	49	1227
Cart. Road	W. Punnett	417,792	Dec. 24	2467	650	49	1877
Cart. Road	R. D. Scott	416,241	Dec. 3	129	36	49	1394
Cart. Road	G. F. Woodard and G. H. Carroll	413,332	Oct. 22	2206	599	49	409
Cart-seat. Movable	W. H. Lingle	417,053	Dec. 10	1338	366	49	1643
Cart. Self-loading dirt.	S. M. Stevenson	416,904	Dec. 10	1198	322	49	1615
Cart. Soldier's	H. Gentzen	417,017	Dec. 10	1279	350	49	1631
Carriage-case. Damp-proof	J. C. Butterfield and T. C. Batchelor.	415,899	Nov. 26	2646	603	49	1276
Carriage-crimper	E. A. Franklin	417,673	Dec. 17	2978	603	49	1822
Carriage-ejector for revolving fire-arms	H. M. Caldwell	415,444	Nov. 19	1939	504	49	1197
Carriage-loading machine	U. Bachmann	414,964	Nov. 12	1193	312	49	982
Carving-machine	H. Holmes	413,722	Oct. 29	2870	749	49	569
Carving-machine	S. F. Moore	415,416	Dec. 31	3422	894	49	3072
Case:							
See Blacking-kit case.	Organ-case.						
Book-case.	Piano-case.						
Cartridge-case.	Pocket-case.						
Egg-case.	Printer's chase-transportation case.						
Elevator-case.	Shot-case.						
Fruit-packing case.	Shov-case.						
Instrument and medicine case.	Ticket-case.						
Latch-case.	Toilet-case.						
Latch and lock case.	Trunk or traveling-case.						
Lock-case.	Watch-case.						
Map-case.							
Case for displaying goods	M. W. Bigne	416,552	Dec. 3	598	163	49	1489
Cash and package carrier	H. M. Weaver	412,144	Oct. 1	534	137	49	165
Cash and package carrying apparatus	H. M. Weaver	415,143	Oct. 1	522	127	49	165
Cash-box	I. Pforzheimer	415,396	Nov. 19	1664	485	49	1111
Cash-carrier	F. S. Church	417,147	Dec. 10	1484	403	49	1671
Cash-carrier	R. O. Doughty	412,245	Oct. 8	678	169	49	141

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & Cl.	Vol.	Page.
Cash-carrier.	T. M. Kenney	416,923	Dec. 10	1148	314	49	1605
Cash-carrier.	T. M. Kenney	416,924	Dec. 10	1150	315	49	1605
Cash-carrier apparatus.	R. W. Super	416,970	Dec. 10	1071	289	49	1569
Cash-carriers. Propelling device for	J. H. and H. W. Lakin	418,196	Dec. 31	3090	811	49	2005
Cash-indicator and recorder	B. P. Wagner	414,611	Nov. 5	664	174	49	872
Cash indicator and register	W. C. McGill	415,120	Nov. 12	1409	368	49	1026
Cash indicator and register	J. H. Patterson	414,442	Nov. 5	405	102	49	821
Cash indicator and register	J. H. Patterson, C. D. Grimes, and E. Church	414,441	Nov. 5	400	101	49	820
Cash indicator and register	W. G. Schickner	414,781	Nov. 12	914	237	49	928
Cash indicator and register	J. Sharpe	414,872	Nov. 12	1055	272	49	954
Cash indicator, register, and recorder	F. J. Patterson and C. D. Grimes	414,440	Nov. 5	397	101	49	819
Cash-indicators. Key-arrester for	C. B. Hopkins	415,781	Nov. 26	2480	648	49	1242
Cash-recorder	C. E. Stone	415,569	Nov. 19	2189	571	49	1177
Cash-register	I. D. Boyer	410,020	Nov. 26	2553	747	49	1330
Cash-register	T. Munnell	416,119	Nov. 26	3016	785	49	1351
Cash-register	J. E. Reynolds	416,125	Nov. 26	3031	788	49	1354
Cash register and indicator	I. D. Boyer	414,008	Oct. 29	3295	860	49	677
Cash register and indicator	I. D. Boyer	414,009	Oct. 29	3300	861	49	678
Cash register and indicator	I. D. Boyer	414,010	Oct. 29	3303	861	49	679
Cash register and indicator	A. M. Harrison	412,611	Oct. 8	1221	320	49	246
Caster.	A. B. Dias	412,484	Oct. 8	1033	269	49	209
Caster.	H. V. Smith	415,583	Nov. 19	2185	570	49	1177
Caster.	J. E. Treat	412,208	Oct. 8	770	200	49	158
Caster. Furniture	A. Stonehouse and R. Victor	413,574	Oct. 22	2847	686	49	1335
Caster. Furniture	A. M. Swau	414,603	Nov. 5	652	169	49	870
Casting apparatus. Metal	S. W. Wilkinson	412,687	Oct. 8	1337	349	49	969
Casting armor plates	W. F. M. McCarty	415,173	Nov. 12	1533	394	49	1040
Casting apparatus. Stereotype	J. R. Cummings	410,717	Dec. 10	853	220	49	1546
Casting ingots. Apparatus for	J. Illingworth	414,841	Nov. 12	1005	260	49	946
Casting ingots. Device for	T. Brady	412,822	Oct. 15	1545	403	49	316
Casting ingots or billets	H. Aiken	416,705	Dec. 10	839	227	49	1543
Casting machine. Type	H. Popp	413,550	Oct. 22	2607	676	49	526
Casting metal. Machine	C. Schumacher	418,336	Dec. 31	3332	862	49	2063
Casting metals. Mold for	C. Payen	415,975	Nov. 19	2199	558	49	1194
Casting-mold	F. D. Taylor	413,815	Oct. 29	3003	759	49	614
Casting plates for use as electrodes of storage-batteries. Mold for	C. Payen	415,392	Nov. 19	1774	461	49	1095
Casting printers' rollers. Apparatus for	M. F. Bingham	415,855	Nov. 26	2582	675	49	1262
Casting ribbed articles. Pattern for	J. J. Hogan	414,705	Nov. 12	811	212	49	908
Casting ash-weights. Machine for	J. J. Dunn	416,450	Dec. 3	444	121	49	1450
Casting the plates of storage-batteries. Mold for	P. G. Caldwell	413,300	Oct. 22	2271	591	49	462
Catamenial sack	W. R. and C. Steinmetz	415,475	Nov. 19	1999	517	49	1139
Catch. Spring	H. M. Hindsill	414,317	Nov. 5	61	13	49	750
Cattle. Chute for deboning	J. Moorehouse	411,068	Oct. 29	3389	881	49	697
Cattle-deboning device	W. J. Bogard	415,965	Nov. 26	2600	714	49	1310
Cattle. Device for deboning	J. M. King	411,953	Oct. 1	177	45	49	36
Cattle. Device for holding the heads of	E. K. Rea	417,280	Dec. 17	1678	454	49	1719
Cattle-guard	P. Merrill	413,238	Oct. 22	2156	561	49	440
Cattle-guard	J. Vall	412,310	Oct. 8	771	200	49	158
Cattle-guard. Surface	J. T. Hall	418,013	Dec. 24	2797	728	49	1941
Cattle-guard. Surface	J. T. Hall	418,014	Dec. 24	2798	728	49	1941
Cattle-guard. Surface	P. Merrill	412,967	Oct. 15	1740	455	49	332
Cattle. Head-gear for	F. Cochran	416,441	Dec. 3	431	116	49	1456
Cattle. Implement for deboning	J. A. Postlewick	417,790	Dec. 24	2465	649	49	1877
Cattle. Implement for deboning	A. Katz	416,536	Dec. 3	345	94	49	1304
Ceiling	L. S. Hunter	417,967	Dec. 24	2574	678	49	1898
Ceiling-clamp	L. L. Sagendorph	417,949	Dec. 24	2701	711	49	1922
Ceiling-cornice. Metal	P. G. Caldwell	414,017	Oct. 29	3315	864	49	681
Ceiling. Metal	G. W. Rugg	418,192	Dec. 31	3086	813	49	2004
Ceilings, &c. Fire-proof compound for	A. Klapperstick	412,672	Oct. 8	1316	343	49	2055
Celery-bleacher	G. W. Rugg	412,672	Oct. 8	1316	343	49	2055
Celluloid plates. Coating	F. Rowell	415,596	Nov. 19	2159	563	49	1172
Cement. Manufacturing	G. Durvee	417,634	Dec. 17	2298	564	49	1822
Cementing cisterns or wells	W. H. H. Davis	411,981	Oct. 1	292	76	49	60
Central-station-calling apparatus	I. H. Farnham	412,276	Oct. 23	2308	576	49	450
Centrifugal machine	A. Waldhaur	417,799	Dec. 24	2476	652	49	1879
Centrifugal machines. Means for operating	W. Bergh	415,698	Nov. 26	2663	617	49	1319
Centrifugal separating machine	H. Bergner	416,320	Dec. 3	351	65	49	1419
Cereals. Treating	F. Dort	412,951	Oct. 15	1718	438	49	348
Chain-iron. Vehicle	G. W. Seidewick	417,753	Dec. 24	2401	632	49	1864
Chain-bar	J. H. Fanning	418,429	Oct. 22	2455	637	49	497
Chain. Drive	E. S. Jennings	414,416	Nov. 5	362	89	49	812
Chain. Drive	M. M. Shellaeger	415,360	Nov. 19	1732	449	49	1055
Chain. Elastic	C. Redwood	416,497	Dec. 3	513	139	49	1471
Chain. Knitted	W. C. Edge	416,559	Dec. 3	360	45	49	1399
Chain-link	F. F. Ellis	418,453	Dec. 31	3479	910	49	2065
Chain. Sheet-metal	P. Egge	417,007	Dec. 10	1265	346	49	1629
Chain. Trace	H. H. Kinley	412,960	Oct. 15	1732	452	49	350
Chain-wheel casing	G. L. Metcalf	414,774	Nov. 12	904	234	49	926
Chains. Manufacture of weldless	H. Bongier	412,764	Oct. 29	2928	764	49	600

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Page.	Vol.	Page.
Chair:							
See Adjustable chair.	Invalid-chair.						
Convertible chair.	Night-chair.						
Dental chair.	Rail-chair.						
Elevating-chair.	Reclining-chair.						
Exercising-chair.	Rocking-chair.						
Folding chair.	Surgical chair.						
Hygienic chair.							
Chair	W. G. Cross	416,324	Dec. 3	256	66	49	1490
Chair	P. Flowers	416,906	Dec. 10	1124	307	49	1399
Chair	W. Suggett	411,938	Oct. 1	234	59	49	47
Chair and lounge. Combined.	J. M. Groff	416,837	Dec. 10	1027	276	49	1379
Chair attachment.	J. Hogan	412,617	Oct. 8	1238	323	49	249
Chair attachment. Rocking.	W. L. Banker	416,300	Dec. 3	85	24	49	1375
Chair attachment. Rocking.	C. Kade	418,371	Oct. 31	3666	938	49	2121
Chair-brace	J. F. Sargent	413,291	Oct. 22	2343	582	49	457
Chair or seat.	A. H. and P. A. Lindberg	417,327	Dec. 17	1744	470	49	1731
Chair-seat.	W. Schmalz	416,505	Dec. 3	323	142	49	1474
Chandeliers.	J. N. Chamberlain	414,433	Nov. 5	479	192	49	837
Change-delivery apparatus.	D. S. White	414,466	Nov. 5	438	111	49	828
Change-receiver.	C. L. Bellamy	415,807	Nov. 26	2517	657	49	1249
Charcoal. Kiln for making.	E. W. Rathman	413,306	Oct. 22	2268	590	49	461
Chart. Color.	H. L. Turner	419,146	Dec. 21	3013	790	49	1980
Check-holder and check-sprender.	S. E. Harsh	415,038	Nov. 12	1304	340	49	1004
Check-hook.	J. A. Cralh	417,707	Dec. 24	2333	616	49	1851
Check-receiving apparatus.	J. R. Ward	413,002	Oct. 15	1791	468	49	362
Checking and unchecking device.	J. Roby	415,284	Nov. 19	1694	429	49	1079
Checkrein operative device.	J. W. McMahon	415,681	Nov. 19	2333	609	49	1995
Cheese. Machine for cutting, shaving, and grinding.	J. Vercelli and B. Graziana.	412,810	Oct. 15	1316	396	49	310
Cheese-vat.	E. Wagner, Jr.	416,766	Dec. 10	916	247	49	1558
Chemical-engine.	R. T. Van Valkenburg	413,337	Oct. 29	3030	789	49	620
Chess-board. Pocket.	F. Catlin	413,026	Oct. 15	1832	479	49	370
Chest:							
See Flour-chest.							
Chicken-brooder.	N. Powell	417,791	Dec. 24	2465	650	49	1877
Chimney-cap.	W. E. Esperson	417,415	Dec. 17	1878	503	49	1756
Chimney-cover.	G. Lhoté	415,916	Nov. 26	2675	700	49	1282
Chimney-cowl.	F. Vincent	418,202	Dec. 31	3169	831	49	2021
Chimney gas-trap.	V. W. Blanchard	413,903	Oct. 29	3134	817	49	642
Chisel for forming mortises for drawer-locks.	E. Hamburjer	415,636	Nov. 19	2267	518	49	1192
Chisel. Mortising.	A. P. Lanterman	412,275	Oct. 8	723	159	49	149
Chlorine. Apparatus for liquefying.	J. B. Hannay	418,019	Dec. 24	2807	741	49	1943
Chlorine. Obtaining.	L. Mond and G. Eschellmann	416,038	Nov. 26	2872	749	49	1324
Chocolate-pot.	C. J. Mulford	411,870	Oct. 1	138	35, 36	49	29
Chopper:							
See Cotton-chopper.							
Christmas-tree holder.	H. W. Diek	417,815	Dec. 24	2502	639	49	1883
Christmas-tree ornament and candle-holder.	H. Schlueter and O. Kuch	414,871	Nov. 12	1183	271	49	954
Chromium sulphates. Making.	H. A. Seegall	415,739	Nov. 26	2419	601	49	1250
Chuck.	G. P. and C. R. Andrews	412,229	Oct. 8	651	170	49	136
Chuck. Brace.	S. Francis	414,768	Nov. 12	897	232	49	925
Chuck-jaw.	W. L. Sweetland	414,935	Nov. 12	1183	309	49	979
Chuck. Lathe.	J. Hartness and E. F. Spaulding	412,027	Oct. 1	362	93	49	73
Chuck. Planer.	R. Weller	416,244	Dec. 3	133	37	49	1394
Churn.	J. R. Bedell	415,356	Nov. 19	1813	472	49	1101
Churn.	A. W. Duff	417,310	Dec. 17	1717	402	49	1226
Churn.	M. N. Castleman	415,357	Nov. 19	1814	494	49	1101
Churn.	G. W. Clapp and B. F. Low	414,632	Nov. 5	694	180	49	878
Churn.	H. W. Cral	413,175	Oct. 22	2065	537	49	422
Churn.	W. H. Crawford	415,624	Nov. 19	2251	587	49	1189
Churn.	J. W. Duffy	414,506	Nov. 5	408	127	49	807
Churn.	H. Felt	412,300	Oct. 8	684	181	49	142
Churn.	C. Graf	412,250	Oct. 8	684	181	49	142
Churn.	A. Gastlin	414,212	Nov. 5	53	12	49	748
Churn.	J. W. Herrliott	416,610	Dec. 3	687	186	49	1506
Churn.	S. P. Jackson	415,155	Dec. 31	3076	807	49	2004
Churn.	H. H. Loth and C. Ziegler	414,064	Oct. 29	3384	80	49	606
Churn.	H. J. McKinney	415,054	Nov. 12	1325	345	49	1008
Churn.	A. L. Montague	414,238	Nov. 5	91	21	49	756
Churn.	S. D. Palmer	418,355	Dec. 31	3238	872	49	2054
Churn.	W. H. Shoup	412,934	Oct. 15	1697	442	49	343
Churn.	R. L. Trimble	413,985	Oct. 29	2255	650	49	668
Churn-closure.	S. A. Castleman	417,063	Dec. 17	2208	508	49	1229
Churn-closure.	S. D. Palmer	418,536	Dec. 31	3340	872	49	2054
Churn-closure.	S. D. Palmer	418,379	Dec. 31	3370	879	49	2061
Churn-closure.	H. H. and S. D. Palmer	418,454	Dec. 31	3337	871	49	2054
Churn-closure.	J. A. Weber	411,646	Oct. 1	112	29	49	34
Churn-dasher.	D. A. Fiske	412,407	Dec. 31	3402	888	49	2066
Churn-dasher.	J. T. Hart	414,532	Nov. 5	541	139	49	849
Churn-dasher.	J. W. McClure	413,537	Oct. 22	2594	672	49	524
Churn-dasher.	A. D. van Bibber	413,583	Oct. 22	2639	691	49	518
Churn-operating mechanism.	S. A. O'Brien	412,933	Dec. 24	3008	812	49	1915
Churn-power.	J. W. Johnson	415,111	Nov. 12	1396	365	49	1024
Churn. Rotary.	H. F. Stoetman	413,978	Oct. 29	2247	648	49	66
Churn. Motive power for.	C. W. Hagel	412,104	Dec. 10	1412	385	49	1658
Churning.	J. W. Beckwith	415,357	Nov. 19	1614	416	49	1064
Chute. Coal.	D. H. Shenkels	413,970	Nov. 26	2768	724	49	1302

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'k.	Vol.	Page.
Chnte. Coal.....	F. G. Susemihl.....	416,018	Nov. 26	2836	749 743	49	1317
Cider or wine press.....	E. W. Root.....	415,136	Nov. 12	1431	372	49	1028
Cigar.....	G. Geschwendtner.....	411,806	Oct. 1	44	13	49	12
Cigar-box-label attachment.....	C. H. Fessenden.....	412,488	Oct. 8	1037	270	49	210
Cigar-bunching machine.....	R. A. Bright.....	416,068	Dec. 3	775	511	49	1733
Cigar-bunching machine.....	F. J. Hagen.....	411,919	Oct. 1	207	53	49	42
Cigar-bunching machine.....	F. J. Hagen.....	415,943	Nov. 26	2727	713 714	49	1294
Cigar-bunching machine.....	C. H. Hangk.....	416,011	Dec. 10	1199	308 309	49	1601
Cigar-bunching machine.....	C. H. Hangk and E. Wenigmann.....	416,013	Dec. 10	1133	310	49	1601
Cigar-bunching machine.....	F. C. Miller.....	416,065	Nov. 26	2910	759	49	1331
Cigar-bunching machine.....	F. C. Miller.....	416,066	Nov. 26	2916	760 761	49	1332
Cigar-bunching machine.....	F. C. Miller.....	416,117	Nov. 26	3008	753 754 785	49	1349
Cigar-bunching machines. Roller cloth or apron for.	M. Smith, G. F. Palm, and S. Irvine.....	417,293	Dec. 17	2166	576	49	1810
Cigar-cutter.....	F. W. Powell.....	415,061	Nov. 12	1333	348	49	1010
Cigar-mold.....	M. A. W. Inget.....	416,334	Dec. 3	374	156	49	1454
Cigar-receptacle.....	A. J. Parker.....	417,365	Dec. 17	1813	487	49	1743
Cigar-trimming and marking machine.....	F. E. Kaiser.....	415,643	Nov. 19	2274	593	49	1193
Cigar-wrapping machine.....	J. T. Pennycook.....	414,572	Nov. 5	599	154	49	839
Cigars. Device for branding.....	L. Paine.....	414,075	Dec. 29	3397	893	49	699
Cigarette-box.....	E. A. Hoer.....	414,338	Nov. 5	548	141	49	859
Cigarette-machine.....	H. Atkins.....	418,547	Dec. 31	3629	948	49	2115
Cigarettes, &c. Case for delivering.....	S. Berge.....	417,137	Dec. 10	1465	397	49	1608
Circuit-closer. Automatic.....	J. von der Kammer.....	417,758	Dec. 24	2414	637	49	1897
Circuit. Metallic.....	H. F. Campbell.....	415,707	Oct. 29	2853	744	49	585
Clamp.....	See Beseloth-clamp. Railway-rail clamp.						
Clamp.....	Carbon-clamp. Rope-clamp.						
Clamp.....	Ceiling-clamp. Rubber-dam clamp.						
Clamp.....	Clothes-line clamp. Sewing-machine-needle clamp.						
Clamp.....	Matrix-plate clamp. Supporting-clamp.						
Clamp.....	Metal tie-clamp. Tool-clamp.						
Clamp.....	Metallic clamp. Welding-clamp.						
Clamp.....	Railway-frog clamp.						
Clamp.....	G. W. Baker.....	417,307	Dec. 17	1713	461	49	1736
Clamp.....	F. Huber.....	417,919	Dec. 24	2646	699	49	1912
Clamping device.....	H. B. Nickerson.....	411,967	Oct. 1	274	71	49	55
Clamping plates or sheets of metal. Device for.....	C. L. Huston.....	413,945	Oct. 29	3198	853 836	49	657
Clasp.....	See Corset-clasp. Pencil-clasp.						
Clasp.....	Garment-clasp. Taylor's fitting-clasp.						
Clasp.....	Garment-supporting clasp.						
Clasp.....	M. V. Hammack.....	418,614	Dec. 31	3730	974	49	2134
Clasp.....	F. Lambley.....	412,514	Oct. 8	1075	391	49	218
Clasp.....	T. W. Noxon.....	413,301	Oct. 22	2259	547	49	460
Clasp.....	J. H. Pilkington.....	415,557	Nov. 19	2141	558	49	1168
Clasp.....	T. Walker.....	417,124	Dec. 10	1449	393	49	1665
Clasp.....	R. H. Waters.....	416,327	Dec. 3	564	153	49	1492
Clasp.....	I. L. Welkopf.....	412,813	Oct. 15	1519	397	49	311
Clasp and tag.....	M. Moosé.....	416,790	Dec. 10	1850	360	49	1566
Clasp for waistband-loop.....	S. Myers.....	415,416	Nov. 19	1899	431	49	1119
Clasp-plate.....	J. J. Unbehend.....	416,685	Dec. 3	869	221	49	1590
Clay for ballast, &c. Burning.....	W. and H. G. Butler.....	415,358	Oct. 22	2251	609	49	475
Clay-reducer.....	W. Burkman.....	412,321	Oct. 8	788	205	49	161
Clay to make ballast, &c. Feeding apparatus for use in burning.....	W. Davy and H. G. Butler.....	413,361	Oct. 22	2256	610	49	476
Cleaner.....	See Ash-pan cleaner. Rubber-stock cleaner.						
Cleaner.....	Boiler-cleaner. Slate-cleaner.						
Cleaner.....	Boiler-tube cleaner. Stove-pipe cleaner.						
Cleaner.....	Flue-cleaner. Track-cleaner.						
Cleaner.....	Grain-cleaner. Tube-cleaner.						
Cleaner.....	Pipe-cleaner.						
Cleat. Boat.....	H. B. Nickerson.....	413,636	Oct. 22	2729	707	49	532
Clevis.....	O. Bates.....	417,804	Dec. 24	2485	655	49	1881
Clevis.....	P. H. Kull.....	418,631	Dec. 24	2926	745	49	1946
Clevis-compiling.....	C. Averitt.....	413,840	Oct. 29	3035	791	49	621
Clevis. Flow.....	T. C. Belding.....	415,016	Nov. 12	1273	333	49	997
Clinometer.....	W. B. Melick.....	416,683	Dec. 3	797	218	49	1528
Clip.....	See Car card-clip. Paper-clip.						
Clip.....	Detector-bar clip.						
Clipping cuts, &c. Apparatus for.....	W. W. Ingraham.....	416,325	Dec. 3	968	70, 71	49	1432
Cloak and skirt protector.....	M. E. Ambury.....	415,060	Oct. 1	139	67	49	67
Clock-case.....	F. Kroeber.....	413,235	Oct. 22	2153	560	49	439
Clock. Electric pendulum-driven.....	M. L. M. Hussey.....	413,281	Oct. 29	2222	578	49	453
Clock. Electric-winding.....	F. A. Lane.....	417,928	Dec. 24	2667	703	49	1916
Clock-movement and the like.....	H. S. Prentiss.....	416,804	Dec. 10	971	293 294	49	1568
Clock or watch key.....	G. D. Clark.....	414,677	Nov. 12	771	199	49	900
Clock-pendulum.....	G. P. Reed.....	415,735	Nov. 26	2414	631	49	1229
Clock-pendulums. Electric synchronizing device for.....	J. Hamblet.....	418,125	Dec. 24	2973	780	49	1974
Clock. Secondary electric.....	E. L. Stocum.....	416,148	Nov. 26	1362	795	49	1860
Clock-station. Watchman's.....	F. F. Scribner.....	413,045	Oct. 1	384	99	49	77
Clock striking mechanism.....	R. B. Carr.....	412,018	Oct. 1	349	90, 91	49	70

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.
				Spec.	Dr. & C.	
Clock-winding device. Automatic electric	F. A. Lane	417,927	Dec. 24	3665	702 703	49 1915
Clocks. Electric regulator for pendulum	J. H. Gerry	413,340	Oct. 22	3292	692 693	49 471
Clocks. Electrical appliance for winding	F. A. Lane	415,817	Nov. 26	3528	690	49 1951
Clocks. Time-distributor for electric	L. H. Speller	417,753	Dec. 24	3403	633	49 1864
Closet: See Dry closet. Water-closet. Wash-out closet.						
Cloth folding and winding machine	J. Maguire and N. S. Cary	415,674	Nov. 26	3608	682 683	49 1268
Cloth folding machine	W. F. Brook	413,019	Oct. 15	1925	477	49 369
Cloth for the purpose of testing it. Apparatus for withdrawing a thread from woven	M. Mouradian	415,367	Nov. 19	1834	475	49 1103
Cloth-pressing machine	G. W. Miller	413,900	Oct. 22	3184	569 570	49 445
Cloth-stretching roll	G. W. Miller	417,864	Dec. 17	1651	448	49 1714
Clothes-drier	F. Brucker	418,497	Dec. 31	3547	929	49 3098
Clothes-drier	G. H. Dixon	418,279	Dec. 31	3312	840	49 3029
Clothes-drier	F. A. Nichols	416,685	Dec. 3	709	218	49 1528
Clothes-drier	E. F. Rouse	415,285	Nov. 19	1695	439	49 1060
Clothes-drier	A. A. Smedstad	415,743	Nov. 26	3424	634	49 1231
Clothes-drier	F. R. Welton	417,959	Dec. 24	3715	715	49 1924
Clothes line	H. E. Percival	416,854	Dec. 10	1048	382	49 1584
Clothes-line clamp	M. F. Hayes	412,749	Oct. 15	1433	374	49 385
Clothes-line prop	R. McAlpine	418,378	Dec. 31	3369	879	49 3060
Clothes-line support	J. B. and R. Johns	418,413	Dec. 31	3420	893	49 3072
Clothes-pin	C. Barlow	415,184	Nov. 19	1547	399	49 1051
Clothes-pin	M. Warren	417,847	Dec. 24	3549	671	49 1892
Clothes-pin	E. M. Watson	418,429	Dec. 31	3448	961	49 3077
Clothes-pouder	G. C. Bronner	417,309	Dec. 10	1570	436	49 1689
Clothes-pouder	A. E. Hobbleswhite	414,704	Nov. 12	810	211	49 908
Clothes-rack. Folding.	J. and J. J. Kaufman	416,843	Dec. 10	1054	378	49 1581
Clothes-sprinkler	J. Strechok	418,477	Dec. 31	3515	919	49 3091
Clutch	J. Brooks	413,490	Oct. 22	3528	655	49 512
Clutch appliance for elevators	C. R. Pratt	417,086	Dec. 10	1384	379	49 1652
Clutch. Friction.	L. B. Clapp	415,997	Nov. 26	3202	735	49 1310
Clutch. Friction.	F. C. Miller	416,967	Nov. 26	3580	761	49 1333
Clutch. Friction.	N. Shaw	412,674	Oct. 8	1314	344	49 365
Clutch. Friction.	J. C. Young and G. A. Davis	414,273	Nov. 5	137	33	49 765
Clutch mechanism	G. A. Goodson	414,402	Nov. 5	329	83	49 694
Clutch-nail	H. De Haven	417,313	Dec. 17	321	403	49 1727
Clutch-operating mechanism	F. E. Latham	418,197	Dec. 31	3604	819	49 3085
Clutch. Power-transmitting	W. F. Sherman	413,569	Oct. 22	3639	645	49 534
Coach-gear	C. E. Wnack	415,287	Nov. 19	1701	441	49 1081
Coal. Apparatus for handling	G. W. Rawson	411,902	Oct. 1	187	48	49 38
Coal-bin or coal-cabinet	J. J. Knykendall	413,968	Oct. 15	1865	409	49 381
Coal-bucket. Automatic	A. M. Rucker and T. Long	418,231	Dec. 31	3139	824	49 3015
Coal-cage	R. B. Campbell	414,139	Oct. 29	3487	905	49 717
Coal-conveying device	L. Boudreaux	415,493	Nov. 19	3031	538	49 1146
Coal-cutting machinery	W. N. Symington	413,796	Oct. 29	2976	775	49 609
Coal-drilling machines. Miner's grip or bracket for supporting	A. T. Moats	412,532	Oct. 8	1086	283	49 320
Coal-dust feeder	E. Pail	414,322	Nov. 5	210	52, 53	49 789
Coal-elevators. Tribrmer or gatherer for	L. D. Howard	412,621	Oct. 8	1246	325	49 351
Coal. Machine for washing and separating or grading	P. C. Forrester	414,330	Nov. 5	311	79, 40	49 601
Coal or ore bins. Discharge apparatus for	J. V. Ericson	412,374	Oct. 8	871	227	49 177
Coal or ore bins. Discharge apparatus for	J. V. Ericson	412,375	Oct. 8	873	227	49 177
Coal or ore bins. Discharge apparatus for	J. V. Ericson	412,376	Oct. 8	874	228	49 177
Coal-receptacle	E. S. Farley and M. R. Strong	412,487	Oct. 8	1036	270	49 310
Coal-separator	T. H. Phillips and J. E. Evans	413,416	Oct. 22	2427	630	49 492
Coal-tipple	T. Watkins and J. H. Brown	417,891	Dec. 24	3610	687 688	49 1904
Coal. Tower for the elevation and storage of	E. L. Clark	413,601	Oct. 15	1840	461	49 572
Coal and hat hook	W. V. Wright	417,128	Dec. 17	1433	374	49 1165
Coal and hat hook	G. W. Wright	417,129	Dec. 10	1454	394	49 1666
Coal and vehicle apron. Combined	S. C. Horn	417,028	Dec. 10	1298	354	49 1635
Cock	P. Mueller	416,577	Dec. 31	3368	878	49 3060
Cock. Ball	W. J. Cahill	418,162	Dec. 31	3483	799	49 1965
Cock. Gage	J. F. Gendley	414,634	Oct. 29	3338	870	49 686
Cock. Gage	D. G. Noack	412,890	Oct. 15	1633	426	49 331
Cock. Stop	J. Heltze	417,785	Dec. 24	3458	647	49 1876
Cocks, &c. Non-conducting hand-wheel for	J. W. Becker	413,313	Oct. 22	2280	503	49 464
Coffee and tea pot	E. F. Thompson	415,372	Nov. 19	1853	478	49 1066
Coffee. Machine for mixing ground	O. Voigt	415,851	Nov. 26	3579	674	49 1361
Coffee-mill	W. A. Hance	413,320	Oct. 22	2288	505	49 466
Coffee-mill	W. A. Hance	413,321	Oct. 22	2299	505	49 466
Coffee or tea pot	R. Heintzel	415,461	Dec. 31	3492	914	49 3086
Coffee or tea pot	C. F. Monroe	416,178	Dec. 3	45	14	49 1578
Coffee or tea pot	L. J. Richards	412,667	Oct. 8	1209	342	49 364
Coffee or tea pot	E. Shobe	414,506	Nov. 5	640	167	49 867
Coffee-pot	G. M. Florer and C. W. Moyer	412,730	Oct. 15	1430	371	49 308
Coffee-pot	J. S. Stidham	418,390	Dec. 31	3387	883 884	49 3064
Coffee-pot	R. W. Terrell	412,138	Oct. 1	513	135	49 104
Coffee-roaster	T. B. C. Burpee	415,957	Nov. 26	2732	692	49 1360
Coffee-roasters. Apparatus for use in connection with	G. S. Hungerford	412,388	Oct. 8	889	233	49 181
Coffer-dam	J. E. Robinson	414,683	Oct. 29	3408	885 886	49 701

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.
				Spec.	Dr. g.	
Coffin	E. and B. Holmes	417,725	Dec. 24	2329	6922	49 1857
Coffin	D. R. Johnson	417,042	Dec. 10	1330	361	49 1640
Coffin	J. H. Walker	416,384	Dec. 3	332	93	49 1438
Coffin-fastener	W. C. Langenau	413,675	Oct. 29	3808	731	49 577
Coffin-fastener	C. E. Richards	416,932	Nov. 26	3810	737	49 1712
Coffin-fastener	J. H. Scott	416,355	Dec. 10	1190	324	49 1613
Coffin-fastener	J. H. Scott and S. Nelson	416,302	Dec. 3	224	58	49 1413
Coffin-fastener	L. E. Woodard	417,619	Dec. 17	2202	587	49 1818
Coiling metal rods. Device for	F. G. Tallman	412,565	Oct. 8	1142	299	49 1232
Coiling wire rods. Machine for	F. G. Tallman	412,564	Oct. 8	1140	298	49 1232
Coin-box	G. W. Price	416,498	Dec. 3	511	139	49 1471
Coin-holder	F. R. Bigler	416,551	Dec. 3	507	163	49 1469
Coin-operated apparatus	H. M. Wilson	412,315	Oct. 8	781	303	49 160
Coin-operated mechanism	D. L. Hough and H. Knight	417,726	Dec. 24	2360	6922	49 1857
Coin-registering receptacle	I. Pforzheimer	413,206	Oct. 22	2106	547	49 430
Colas and receiving therefor. Apparatus for receiving	I. E. Clifford	414,795	Nov. 12	936	243	49 932
Coins. Setting for	T. P. Gaynor	417,016	Dec. 10	1377	349	49 1631
Coking-furnace	G. A. Clark	415,928	Nov. 12	937	249	49 999
Collar and breast-strap. Combined	J. Lipp	412,193	Oct. 1	592	152	49 119
Collar fastener. Horse	M. Marks	417,570	Dec. 17	2135	569	49 1804
Collar. Horse	W. T. Summers	412,895	Oct. 15	1510	393	49 309
Collar. Horse	F. H. Hubbard	412,413	Nov. 5	201	50	49 778
Collar. Horse	J. W. Ringrose	412,543	Oct. 8	1111	291	49 226
Collar pad	J. B. Schott	417,369	Dec. 17	1817	488	49 1744
Collar pad. Horse	F. Altheide	415,316	Nov. 19	1749	454	49 1091
Collar-stuffing machine	T. Fitzgerald	414,305	Nov. 5	190	47	49 775
Collar-stuffing machine	C. Ewing	417,552	Dec. 17	2112	563	49 1769
Collar-stuffing machine	C. Ewing. (Reissue)	411,022	Dec. 31	3810	993	49 2150
Collar-stuffing machine. Horse	G. E. Hoyt	417,560	Dec. 17	2123	565	49 1801
Collars. Making apparel	R. Brownson	415,937	Nov. 26	9721	711	49 1293
Collars. Making apparel	J. K. P. Pine	415,059	Nov. 19	1331	347	49 1009
Collars. Making apparel	J. Squires	415,071	Nov. 12	1348	362	49 1013
Color. Azo-blue	M. Ulrich	415,258	Nov. 19	1646	409	49 1719
Color. Form, and number board	C. E. Boss	414,371	Nov. 5	281	71	49 795
Colored fire	J. G. Stutter	415,479	Nov. 19	2003	493	49 1140
Coloring-matter	A. Herrmann	412,015	Oct. 8	1230	304	49 948
Coloring-matter	A. Herrmann	412,015	Oct. 8	1234	304	49 948
Coloring-matter. Azo	A. Weinberg	412,440	Oct. 8	956	239	49 191
Coloring-matter. Gray	R. Gnehm and J. Schmid	413,049	Oct. 15	1866	493	49 377
Coloring-matter. Producing of azo	A. Herrmann	413,050	Oct. 15	1867	493	49 377
Coloring-matter. Violet	R. Gnehm and J. Schmid	413,049	Oct. 15	1866	493	49 377
Coloring-matters. Production of azo	A. Sarauw	413,562	Oct. 22	2330	6922	49 1857
Coloring-matters. Production of azo	R. Gnehm and J. Schmid	413,048	Oct. 15	1865	493	49 377
Column. Sheet-metal	H. Symonds	412,979	Oct. 15	1792	493	49 355
Column, strut, girder, &c	W. J. Lee	412,307	Oct. 8	802	220	49 1330
Comb	See Curling-comb. Dressing-comb.					
Combs. Apparatus for cleaning wool	R. Ackroyd	413,908	Oct. 29	3279	856	49 673
Combining-machine	H. Lever	414,555	Nov. 5	370	148	49 854
Combining-machine	F. Illingworth	414,824	Nov. 12	1089	277	49 939
Combining-machines. Device for reciprocating the drawing-off rolls of	J. McQueen and W. Moores	413,346	Nov. 19	1795	467	49 1099
Combining-machines. Nipper mechanism for	S. Holdsworth	417,027	Dec. 10	1298	354	49 1635
Commode	J. Kinney	412,973	Oct. 8	719	167	49 149
Commutator	J. A. Dalzell	416,730	Dec. 10	857	231	49 149
Commutator	C. F. Winkler	413,350	Oct. 8	836	218	49 170
Commutator. Automatic synchronizing	S. T. Taylor and M. M. Slattry	411,840	Oct. 1	103	37	49 293
Compass. Automatic recording	C. O. Farciot	412,924	Oct. 22	2344	585	49 1712
Compass. Beam	H. W. Oliver	415,466	Nov. 19	1983	514	49 1136
Composing-stands. Case-holding bracket for	W. A. Miller and S. J. Gompers	413,052	Nov. 12	1223	345	49 1007
Composing-stand	H. P. Free, Jr.	414,294	Nov. 5	113	26	49 760
Compositor's cabinet	L. K. Johnson and A. A. Low	413,449	Oct. 22	2471	641	49 500
Compound engine	A. J. Pitkin	417,083	Dec. 10	1377	378	49 1651
Compressor-regulator	H. C. Sergeant	415,370	Nov. 19	1828	477	49 1104
Concentrator	G. Gates	415,969	Nov. 26	2205	735	49 1311
Concrete-mixing machine	E. Chatain and S. Giletti	413,880	Oct. 29	3008	783	49 615
Condenser	E. L. Ransome	416,950	Dec. 10	1183	322	49 1611
Condenser	C. King	412,723	Oct. 15	1415	370	49 292
Condenser	C. Upton	418,428	Dec. 31	3446	900	49 148
Condenser and air-heater. Steam	E. J. Weiss	414,618	Nov. 5	674	176	49 874
Condenser. Steam	E. J. Weiss	413,915	Oct. 29	3151	823	49 647
Conduit-receptacle. Folding	O. Kutsche	412,009	Oct. 1	305	14	49 73
Conductors. Combined support and safety device for overhead	G. Schmitt	416,425	Dec. 3	497	109	49 1451
Conduit for underground wires	R. A. Morgan, Jr.	417,497	Dec. 17	2011	537	49 1782
Conduit. Underground	H. B. Camp	414,970	Nov. 12	1210	314	49 984
Confections, &c. Machine for making	G. H. Warde	413,215	Oct. 22	2125	552	49 1293
Converter	C. B. Overbaugh	417,579	Dec. 17	2147	572	49 1809
Converter	J. W. Bookwalter	412,721	Oct. 15	1398	366	49 289
Converter	R. F. Ludlow	413,767	Oct. 15	1462	382	49 300

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	De si.	Vol.	Page.
Converter-bottoms. Machine for manufacturing	W. L. Groff	412,919	Oct. 15	1678	438	49	329
Convertible chair	W. F. Parmelee	417,681	Dec. 17	2229	607	49	1834
Conveyer	W. R. Crow	412,949	Oct. 15	1716	448	49	347
Conveyer. Spiral	H. Birkholz	413,604	Nov. 19	2220	575	49	1182
Conveying, ornamenting, and drying machine	F. C. Damm	413,341	Nov. 19	1619	417	49	1066
Cooking apparatus	E. Atkinson	417,088	Dec. 24	2322	613	49	1849
Cooking edibles	H. Fricker	418,119	Dec. 24	2967	778	49	1742
Cooking or heating vessel	H. Bodenstein	412,435	Oct. 8	976	256	49	108
Cooking utensil	C. C. Davis	412,730	Oct. 15	1410	369	49	291
Cooking utensil	A. W. Ohermann	418,216	Dec. 31	3118	817	49	2010
Cooking-vessels. Attachment for fragile	C. C. Thompson	418,096	Dec. 24	2915	765	49	1963
Cooler:							
See Beer-cooler.	Liquor-cooler.						
Body-cooler.	Milk-cooler.						
Liquid-cooler.	Water-cooler.						
Cooler	P. L. Dermigny	415,901	Nov. 26	2649	694	49	1277
Cooler for drinking-glasses. Portable	J. Sachs	413,980	Nov. 26	2779	728	49	1305
Cooling apparatus. Liquid	J. M. Pfaudler	412,290	Oct. 8	742	193	49	133
Cooling buildings, &c. Device for	J. E. Kea	415,296	Nov. 19	1718	447	49	1084
Copies of writings, drawings, &c. Apparatus for reproducing	M. A. Levy	412,435	Oct. 8	1261	329	49	524
Copper and its alloys. Mixture for refining	G. G. Mullins	413,535	Oct. 22	2593	613	49	324
Copper and its alloys. Refining	G. G. Mullins	413,536	Oct. 22	2594	613	49	324
Copper. Electrolytically obtaining	H. A. Seagall	415,738	Nov. 26	2817	709	49	1200
Copper. Making silicium	W. Feld and G. Von Knorre	414,033	Oct. 29	3336	613	49	364
Copv-holder	M. A. Hawley	418,022	Dec. 24	2811	742	49	1943
Copv-holder	J. A. McIntire	415,550	Nov. 19	3132	554	49	1166
Copv-ing-lath	G. H. Jenkins and S. A. Hyer	418,289	Dec. 31	3224	843	49	2032
Copv-ing-pad	T. Robson	412,801	Oct. 15	1590	415	49	324
Copv-ing-press	I. W. Heysinger	411,811	Oct. 1	49	14, 15	49	13
Copv-ing-press. Portable	J. H. Anderson	417,378	Dec. 17	1832	491	49	1746
Copv-ing-press. Roller	M. R. Jewell	416,028	Dec. 3	714	193	49	1513
Cord-hook	H. W. Avery	415,235	Nov. 19	1612	415	49	1064
Cords or lines. Device for holding	E. H. Amet	413,682	Oct. 29	3105	809	49	635
Core-box	J. E. Smith	417,591	Dec. 17	2163	576	49	1928
Corer and slicer. Fruit	C. W. Black	417,972	Dec. 24	2755	719	49	1819
Corn-conveyer	J. and G. O. Healea	412,847	Oct. 15	1565	408	49	319
Corn-cracker	H. Willis	412,578	Oct. 8	1159	304	49	235
Corn-gathering machine	A. J. Garbrieger	413,910	Oct. 29	3280	856	49	674
Corn-husking and folder-chopping machine	G. S. Tracy	418,385	Dec. 31	3292	860	49	2015
Corn-planer	J. De Rose	413,712	Oct. 29	2858	746	49	586
Corn-sheller	G. F. Messinger	413,539	Oct. 22	2588	670	49	323
Corn-sheller. Hand	B. A. Mathewson	417,063	Dec. 10	1353	671	49	1646
Corn-sheller. Shuck	W. S. Reeder	413,556	Oct. 22	2623	631	49	330
Corn-shocking and binding machine	A. Reichert	412,220	Oct. 1	637	166	49	137
Corn-thinner	D. B. Robertson and J. T. Holland	418,656	Dec. 31	3791	969	49	2146
Corner and edge protector	J. E. Knapp	416,536	Dec. 3	372	71	49	1453
Cornet	H. Esbach	417,671	Dec. 17	2215	663	49	1
Cornet	B. H. Hite	412,753	Oct. 15	1438	375	49	296
Cornice and mantel protector. Grate and fire-place	E. E. Bridgers	411,976	Oct. 1	286	74	49	39
Corrugated furnace and flue	S. Fox	417,218	Dec. 24	2556	669	49	1294
Corrugated furnace or flue	S. Fox	414,767	Nov. 12	896	292	49	934
Corset	M. P. Bray	412,015	Oct. 1	346	90	49	70
Corset	T. S. Gilbreath	412,494	Oct. 8	1051	272	49	212
Corset	J. H. Haviland	414,119	Oct. 29	3449	897	49	710
Corset	C. B. Howd	414,542	Nov. 5	553	142	49	851
Corset	L. Kraus	413,191	Oct. 22	2686	543	49	496
Corset-clasp	W. F. Brooks	415,973	Nov. 26	2771	725	49	1303
Corset-clasp	W. F. Brooks	413,645	Oct. 29	2763	717	49	568
Corset-clasp	W. F. Brooks	413,646	Oct. 29	2764	718	49	568
Corset-fastening	F. L. Cross	412,020	Oct. 1	352	92	49	71
Corset-fastening	E. A. Stibbrell	413,577	Oct. 29	3246	848	49	666
Corset-steel	A. A. Schell	414,367	Nov. 26	2892	153	49	857
Cot. Automatic rocking	A. Ottensmeyer	412,093	Dec. 24	2918	695	49	1804
Cot. Folding	A. Wainwright	415,297	Nov. 19	2294	575	49	1180
Cotton and cotton scraper and cultivator	G. H. Wilson	418,268	Dec. 31	3192	836	49	2026
Cotton and preparing it for spinning, &c. Machinery for ginning	H. U. Allen	416,886	Dec. 10	1097	296	49	1594
Cotton. Apparatus for cleaning and handling seed.	W. E. Elam, R. S. Thomas, and S. W. Hardwick.	415,861	Nov. 26	2592	677	49	1263
Cotton. Apparatus for handling and cleaning seed.	W. E. Elam, R. S. Thomas, D. H. Crawford, and S. W. Hardwick.	414,762	Nov. 12	887	220	49	923
Cotton-chopper	J. R. Ammons	414,477	Nov. 5	457	116	49	833
Cotton-chopper	G. W. Reason	417,944	Dec. 24	2996	710	49	1921
Cotton-chopper and cultivator	G. W. Hutto	412,850	Oct. 15	1569	409	49	326
Cotton-chopper and cultivator. Combined	A. W. Weatherly	414,617	Nov. 5	672	176	49	874
Cotton-chopper and cultivator. Combined	B. Whitehead	416,280	Dec. 10	1091	294	49	1592
Cotton-cultivating machine	E. E. Rnyon	412,960	Oct. 15	1753	458	49	355
Cotton-cupper	T. C. and A. E. Wilder	411,913	Oct. 1	199	51	49	41
Cotton-elevator	J. Swinnerton	418,064	Dec. 24	2807	763	49	1062
Cotton-gin	R. R. Gwathmey	418,563	Dec. 31	3655	956	49	2119
Cotton-gin	T. C. McLeander	414,434	Nov. 5	389	98	49	817
Cotton-gin and renovator	A. M. Crooker	418,111	Dec. 24	2951	773	49	1989
Cotton-gin feeders. Distributer for	J. L. Williams	416,883	Dec. 10	1094	295	49	1593
Cotton-gins. Condenser for	A. D. Thomas	418,088	Dec. 24	2912	764	49	1963

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Vol.	Page.
				Spec.	Dr. & G.		
Cotton-gins. Trunk and condenser for	C. Young	412,680	Oct. 8	1344	349	49	271
Cotton-picker	W. F. Snowden	414,994	Nov. 12	1125	296	49	970
Cotton. Pneumatic apparatus for handling seed	A. D. Thomas	414,967	Dec. 24	2190	297	49	1062
Cotton-press	W. W. McAlpine	413,069	Oct. 15	1906	498	49	385
Cotton-press	J. W. Turnpugh	412,807	Nov. 15	1512	294	49	309
Cotton scraper and cultivator. Combined	C. A. Chambers	414,630	Nov. 5	181	180	49	877
Counter for stores, &c. Packing	H. T. Simmons	414,453	Oct. 5	422	107	49	825
Counter-shaft	F. Hart	415,268	Nov. 19	1659	429	49	1067
Counting apparatus	F. R. Phillips	414,325	Nov. 5	215	54	49	761
Coupling							
See Bridge-coupling. Pipe or hose coupling.							
Cable-coupling. Pole-coupling.							
Car-coupling. Shaft-coupling.							
Carriage-vessel. Steam-coupling.							
Clevis-coupling. Stove-pipe coupling.							
Hose-coupling. Thill-coupling.							
Hydrant-coupling. Vehicle reach-coupling.							
Pipe-coupling.							
Coupling for permanent ways	R. Cardwell and S. Watson	412,804	Oct. 15	1550	405	49	317
Coupling-sleeve	J. Willis	415,759	Nov. 26	2457	641	49	1237
Coupon-cutter	G. D. Phippen and J. H. Browne	417,366	Dec. 17	1814	487	49	1743
Cover for cooking-vessel	C. Nielsen	411,530	Oct. 1	89	32	49	928
Cover for receptacles. Swing	S. B. Simon	412,550	Oct. 8	1118	292	49	238
Cow-tail holder	J. M. Ferguson	417,715	Dec. 24	2344	618	49	1854
Cow-tail holder	G. Marsh	415,677	Nov. 19	1628	698	49	1204
Cradle and crib. Combined	J. C. Colleigh	417,512	Dec. 24	2498	656	49	1883
Crane. Hydraulic	J. Kennedy and H. Aiken	412,851	Oct. 15	1571	410	49	330
Crank mechanism	O. F. A. Jørgensen	416,630	Dec. 3	719	195	49	1513
Crank-wheel	V. W. Blanchard	413,911	Oct. 29	3145	222	49	645
Crate	A. E. Hawes	415,362	Nov. 19	1819	473	49	1102
Crate corner fastening	A. T. Linderman	413,948	Oct. 29	3203	836	49	636
Crate. Folding	W. Bruce	413,492	Oct. 29	2533	656	49	512
Crate. Knockdown	H. O. Hyatt	417,561	Dec. 17	2125	566	49	1892
Crate or fruit-case	E. L. Willis	414,629	Nov. 5	662	178	49	875
Crates. Frame	A. T. Linderman	414,715	Nov. 12	886	215	49	911
Crayon-sharpener, cushion, and weight. Combined	G. W. Mills and J. Morphet	412,401	Oct. 8	907	227	49	164
Cream-separator. Centrifugal	S. Jönsson	414,644	Nov. 5	712	183	49	881
Creaming-can	L. Hunsen	413,665	Oct. 29	3768	734	49	573
Creaming paper, straw-board, &c. Die for	A. A. Maynard	414,595	Nov. 25	3096	752	49	1349
Crib-rack	F. C. Hannabuss	416,102	Nov. 30	3762	776	49	1344
Crimping-tool	J. H. Brown and A. E. Spangler	418,330	Dec. 31	3299	892	49	2046
Crocheting or overseaming machine	J. M. Merrow	413,761	Oct. 29	2923	761	49	599
Crocheting or overseaming machine	J. M. Merrow and W. H. Steedman	414,234	Nov. 5	84	30	49	754
Crocheting or overseaming machine	J. M. Merrow and W. H. Steedman	414,718	Nov. 12	830	216	49	911
Crock-press	M. J. Housel	412,504	Oct. 8	1063	277	49	215
Cross-head	A. H. Eddy	413,227	Oct. 22	2144	557	49	437
Cross-heads. Slideway for	V. W. Blanchard	413,904	Oct. 29	3135	818	49	642
Crucible for lead-furnaces	N. R. Wilson	416,085	Nov. 26	2952	769	49	1339
Crupper	W. E. Becker	415,983	Nov. 19	1653	427	49	1072
Crupper-machine	H. Leibe	416,406	Dec. 3	463	136	49	1403
Crusher							
See Ore-crusher. Stone-crusher.							
Crusher	D. H. Anderson	411,881	Oct. 1	152	39	40	32
Crushing and grinding mill	J. F. Winchell	416,304	Dec. 3	74	27	49	1364
Crushing and grinding mill	J. F. Winchell	416,333	Dec. 3	571	155	49	1463
Crushing-mill	G. Frisbee	415,941	Nov. 26	2735	712	49	1294
Crotch	J. W. Howgate	415,511	Nov. 19	2062	385	49	1152
Crystalline calcic tetraphosphate and making the same	J. Reese	412,792	Oct. 15	1494	49	49	306
Cuff-fastener	H. C. Frank	413,441	Oct. 22	2458	638	49	498
Cuff-fastener	J. V. Pilcher	418,050	Dec. 24	2969	752	49	1953
Culinary utensil	S. Bryan	416,711	Dec. 10	840	329	49	1544
Culinary vessel	S. Halstead	416,265	Oct. 1	445	115	49	29
Cultivator	C. W. Clark	414,290	Nov. 5	162	41	49	770
Cultivator	M. E. Hunt	411,512	Oct. 1	54	15	49	14
Cultivator	J. Lawrie	415,540	Nov. 19	2106	547	49	1161
Cultivator	A. Lindgren	412,106	Oct. 1	465	121	49	94
Cultivator	C. Nover	412,654	Oct. 8	1249	337	49	360
Cultivator	J. Roberson	417,442	Dec. 17	1915	511	49	1763
Cultivator	J. Shank	417,748	Dec. 24	2384	630	49	1862
Cultivator	J. Shank	411,836	Oct. 1	192	49	49	39
Cultivator	L. Sylvester	413,836	Oct. 29	3029	729	49	619
Cultivator	J. N. Todd and T. Griffin	417,007	Dec. 17	2184	581	49	1814
Cultivator	R. Wilson	418,300	Dec. 31	3240	845	49	2025
Cultivator and harrow	T. E. Davies	417,547	Dec. 17	2107	569	49	1736
Cultivator and harrow. Combined	C. Heise	417,421	Dec. 17	1886	565	49	1758
Cultivator and planter. Combined	T. K. Borges	417,535	Dec. 17	2091	556	49	1795
Cultivator and planter. Combined	W. R. and J. A. Green	418,178	Dec. 31	3097	804	49	2000
Cultivator attachment	A. H. Harris	416,805	Oct. 10	801	323	49	1548
Cultivator cross-head	P. P. Mast	416,173	Dec. 3	38	12	49	1376
Cultivator. Gopher	D. Snelling	412,426	Oct. 8	942	247	49	191
Cultivator. Hand	K. Voigt	416,620	Dec. 31	3756	981	49	2139
Cultivator or plow	G. W. Doellittle	415,368	Nov. 19	1737	492	49	1088
Cultivator. Orchard	L. A. Gregg	413,443	Oct. 22	2460	639	49	498

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Cultivator-tooth.	H. Agan	412,445	Oct. 8	964	253	49	196
Cultivator-tooth.	J. Drader and A. B. McKay	417,775	Dec. 24	2439	643	49	1572
Cup.							
See Dental impression-cup.	Off-cup.						
Grease-cup.	Sponge-cup.						
Lubricating-cup.	Umbrella-drip-cup						
Cupola and blast furnace.	G. Thasen	415,306	Nov. 19	1580	406	49	1057
Cupping device and vacuum-pump. Combined.	H. R. Allen	413,446	Oct. 8	965	254	49	196
Curb-box.	A. Jr., and F. Keller	412,710	Oct. 8	1373	358	49	276
Curling-comb.	E. T. Ryan	411,933	Oct. 1	228	58	49	46
Curling-iron heater.	H. J. Mattee and G. Burkhardt	412,889	Oct. 15	1631	426	49	331
Curling-tongs.	W. H. Bagshaw	417,462	Dec. 17	1944	519	49	1769
Current generators. Coupling alternate.	J. and E. Hopkinson	412,185	Oct. 1	588	153	49	118
Current generators. Synchronizing alternate.	J. and E. Hopkinson	412,146	Oct. 1	589	153	49	118
Current induction-motor. Alternate.	G. J. Van Depoele	413,060	Oct. 15	2356	651	49	606
Current machine. Alternating.	C. Zipernowsky	413,006	Oct. 15	1900	471	49	394
Currents. Obtaining direct from alternating.	N. Tesla	413,353	Oct. 22	2340	607	49	474
Curry-comb.	C. H. Bartlett	416,545	Dec. 3	506	161	49	1487
Curry-comb and brush. Combined.	G. Havemann	413,608	Oct. 29	2751	732	49	572
Curtain-bracket. Adjustable.	G. McKean	417,928	Dec. 24	2743	732	49	1930
Curtain-dixture.	M. A. Bomar	417,978	Dec. 24	2743	732	49	1930
Curtain-hanger.	C. Günzel	416,090	Dec. 3	673	182	49	1503
Curtain-pin.	D. Davis	415,833	Nov. 26	2553	667	49	1236
Curtain-pole.	C. J. Mathews	413,950	Oct. 29	2398	637	49	659
Curtain-ring attachment.	H. J. Schrader	412,901	Oct. 15	1649	431	49	334
Cushion.	N. B. Allen	415,432	Nov. 19	1923	500	49	1192
See Scalloped ball-cushion.							
Cuspidor.	C. C. Chamberlain	418,553	Dec. 31	3635	950	49	2116
Cuspidor.	D. H. Murphy	417,363	Dec. 17	1811	486	49	1742
Cut-off. Engine.	S. E. Davis	416,492	Dec. 3	373	109	49	1443
Cut-off for engines. Automatic.	G. M. Müller	413,482	Dec. 3	484	138	49	1467
Cut-off. Rain-water.	H. Buddenhagen	417,327	Dec. 17	1567	433	49	1703
Cut-off. Rain-water.	J. M. Baird and R. Sandstrom	416,391	Dec. 3	360	95	49	1440
Cut-off. Rain-water.	H. W. Knight	418,590	Dec. 31	3225	843	49	2032
Cut-out.	A. P. Seymour	411,935	Oct. 1	529	58	49	47
Cut-out. Mechanical.	J. W. Battershall	414,966	Nov. 12	1204	313	49	853
Cut-out. Multiple thermal.	A. Wurts.	413,703	Oct. 29	2848	743	49	584
Cutter.							
See Axle-cutter.	Index-cutter.						
Band-cutter.	Kraut-cutter.						
Biscuit-cutter.	Meat-cutter.						
Button-hole cutter.	Paper-cutter.						
Cake-cutter.	Pipe-cutter.						
Cane-cutter.	Stalk-cutter.						
Cigar-cutter.	Straw-cutter.						
Corn-cutter.	Tenoning-cutter.						
Coupon-cutter.	Tobacco-cutter.						
Dado-cutter.	Tube-cutter.						
Feed-cutter.	Twine-cutter.						
Finger-nail cutter.	Vegetable-cutter.						
Heel-trimming cut-ter.	Wire-cutter.						
Cutter and holder therefor.	J. Martignoni	417,571	Dec. 17	2136	569	49	1894
Cutter-bar.	F. E. Parker and R. M. Clark	416,738	Dec. 10	878	247	49	1531
Cutter-head for matching lumber.	C. E. Zimmermann	414,473	Nov. 5	452	114	49	832
Cutting blanks from sheets. Machine for.	M. D. Knowlton and E. P. Peacock	416,267	Dec. 3	169	46	49	1401
Cutting-machine.	J. G. Leffingwell	415,045	Nov. 12	1315	343	49	1005
Cutting-press.	A. V. Stevens	415,477	Nov. 19	2001	518	49	1140
Cutting square holes. Machine for.	W. O. Gunkel	417,174	Dec. 10	1520	414	49	1078
Cylinders. Producing corrugated.	T. F. Rowland	412,121	Oct. 1	481	125	49	97
Dado-cutter.	W. R. Fox. (Reissue).	11,033	Oct. 8	1385	361	49	279
Dam for regulating channels and banks. Portable.	G. H. Lommer	414,913	Nov. 12	1121	291	49	967
Damper. Fire-place.	E. O. Burrows	413,386	Oct. 22	2390	619	49	453
Damper. Pipe.	H. W. Avery	413,841	Oct. 29	3036	791	49	621
Darning loom. Portable.	I. W. Griscom	413,715	Oct. 29	2961	747	49	587
Darning stockings. Device for.	G. M. Weirich	416,214	Dec. 3	93	27	49	1367
Dead-centers. Device for overcoming.	C. C. Gale	417,718	Dec. 24	2649	619	49	1855
Decanting device.	S. B. Minnich	414,984	Nov. 12	1295	320	49	988
Decorative frame.	L. C. Bruckenstein and C. A. I. Banderleer.	416,048	Nov. 26	2886	754	49	1336
Delivery-machine.	R. Marsh	413,349	Oct. 22	2336	695	49	473
Dental anæsthetic.	H. S. Heath	415,341	Nov. 19	1787	465	49	1098
Dental chair.	E. F. Jacques	416,567	Dec. 31	3661	951	49	2120
Dental chair.	J. J. Carlick	415,397	Nov. 19	1732	451	49	1067
Dental engine.	B. M. Wilkerson	413,156	Oct. 15	2030	509	49	409
Dental fissure-drill.	J. Hood and S. H. Reynolds	412,920	Oct. 15	1679	438	49	339
Dental impression-cup.	A. W. Browne	415,108	Dec. 24	2247	772	49	1968
Dental instrument.	G. M. Weirich	415,594	Nov. 26	2901	754	49	1179
Dental mallet.	L. C. Bryan	416,389	Dec. 10	1225	336	49	1621
Dental matrix.	W. E. Wells	414,333	Nov. 5	254	61	49	390
Dental plates. Electroplating.	G. M. Weirich	412,812	Oct. 15	1519	397	49	711
Dental plates with gold. Lining.	J. G. Ward	418,662	Dec. 31	3800	959	49	2148
Dental plugger.	E. T. Starr	413,376	Oct. 22	2570	615	49	489
Dental pluggers. Pneumatic operator for.	W. G. A. Bonwill	412,492	Dec. 31	3539	926	49	2096
Dental tool.	S. B. Byrnes	415,495	Nov. 19	2039	529	49	1147
Dentist's burr-drill.	F. L. Eager	412,625	Oct. 1	360	93	49	73
	G. Shubert	416,426	Dec. 3	468	109	49	1451
	E. T. Starr	415,983	Nov. 26	2783	729	49	1306

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Dentist's mouth-mirror	G. F. Pease	415,788	Nov. 26	2492	651	49	1244
Derrick	J. B. Brown	414,801	Nov. 15	39	49	49	768
Derrick	J. B. Harrison	412,067	Oct. 1	444	115	49	89
Derrick	W. B. Pless	416,221	Dec. 31	3132	818	49	2011
Derrick. Traveling	O. Holm	414,218	Nov. 5	62	14	49	750
Derricks or cranes. Apparatus for operating	T. McBride and E. Fisher	412,925	Oct. 8	1069	285	49	321
Desiccation	T. E. Housenman and C. B. M. Sprockles	413,232	Oct. 22	2150	558	49	438
Desk	S. Grogg	414,404	Nov. 5	332	84	49	805
Desk. School	J. Amlis	416,660	Dec. 3	707	209	49	1222
Detector							
See Metal-detector.							
Detector-bar	A. H. Johnson	416,921	Dec. 10	1146	314	49	1604
Detector-bar clip	J. T. Hamhay	414,802	Nov. 12	1038	208	49	951
Dialer	C. Arnold	414,853	Nov. 12	1039	266	49	950
Die							
See Auger-bit die.	Pipe-elbow die.						
Heeling-machine	Screw-die.						
Lathe-die.	Screw-cutting die.						
Lathe-die.	Screw-threading die.						
Matrix-making-machine die.	Watch-case die.						
Wire-drawing die.							
Die press. Double-acting gang	J. G. Hodgson	413,667	Oct. 29	2790	724 725 726	49	573
Die press. Gang	J. G. Hodgson	413,668	Oct. 29	2793	726 727	49	574
Die-stock	A. Efinger and L. L. Dewese	413,317	Oct. 22	2224	49	465	
Diffusion apparatus	A. Young	416,362	Dec. 31	3186	834	49	2024
Digestive compound	J. Carnrick	412,837	Oct. 15	1554	49	317	
Digestive compound. Liquid	J. Carnrick	412,835	Oct. 15	1551	49	317	
Digestive compounds. Preparing	J. Carnrick	412,836	Oct. 15	1553	49	317	
Digger							
See Post-hole digger.	Potato-digger.						
Digging-machines. Tooth and tooth-carrier for	W. J. Young	416,982	Dec. 10	1216	333	49	1619
Digging wells or post-holes. Device for	E. G. Stephenson	414,873	Nov. 12	1065	273	49	1555
Directory	E. A. Evans	416,586	Dec. 3	656	177	49	1500
Dish. Baking	M. H. Holcomb	414,413	Nov. 5	344	87	49	808
Dish-drainer	D. Gupfll	415,634	Nov. 19	3265	591	49	1192
Dish or cup. Soap	W. A. Hamilton	412,490	Oct. 8	1067	275	49	213
Dish-washer	J. L. Barnes	414,279	Nov. 5	148	37	49	707
Dish-washer	W. B. Cushman	413,232	Oct. 29	3010	724	49	615
Dish-washer	F. S. Miller	415,562	Nov. 5	5-6	151	49	856
Dish-washing machine	R. H. Cornett	414,023	Oct. 20	3321	866	49	683
Disinfecting and deodorizing device	J. B. Danham	414,688	Nov. 12	790	204	49	903
Disinfecting apparatus	E. L. Stream	417,113	Dec. 10	1434	388 389	49	1660
Disinfecting cake or tablet	G. W. Fitts	417,386	Dec. 17	1844	49	1749	
Display apparatus. Coin-operated	R. H. Amet	414,000	Oct. 29	3281	857	49	674
Display-box	M. Rubin	416,502	Dec. 3	518	141	49	1473
Display-frame	H. Rung	415,065	Nov. 12	1340	350	49	1011
Display-rack for tools	H. C. Besse	418,425	Dec. 31	3456	903	49	2079
Distillation of ammoniacal liquid. Apparatus for	M. E. Wood	415,133	Nov. 12	1431	374	49	1030
Distilling and desulphurizing hydrocarbon oil. Process of and apparatus for	F. W. Minshall	415,876	Nov. 26	2611	684	49	1268
Distilling apparatus	P. Napoles	412,407	Oct. 8	914	239 240	49	185
Distilling apparatus	A. J. Sweeney	415,227	Nov. 19	1604	414	49	1063
Distilling grease and other fatty substances	G. and E. Janeson	414,709	Nov. 12	818	213	49	909
Distilling oils and oleaginous substances	L. Stevens	414,601	Nov. 5	649	109	49	809
Distilling pyrolytic acid. Apparatus for	C. J. T. Burcey	414,967	Nov. 12	1133	301	49	974
Distilling wood. Apparatus for	C. J. T. Burcey	414,968	Nov. 12	1136	302	49	974
Distilling wood. Apparatus for	S. H. Spangler	417,752	Dec. 24	3402	632 633	49	1864
Ditching-machine	W. Carter and D. MacKenzie	416,210	Dec. 3	86	25	49	1385
Ditching-machine	A. N. Cross	418,311	Dec. 31	3266	852	49	2040
Ditching-machine	A. J. Meals	416,534	Dec. 10	1161	317	49	1607
Diving apparatus	O. Pelkey	418,033	Dec. 24	2855	751	49	1902
Diving apparatus. Submarine	F. Vaughan	413,000	Oct. 15	1789	467	49	301
Dock. Floating	J. Standfield	412,992	Oct. 15	1774	463	49	358
Domestic holler	J. E. Phillipy and S. P. Dealy	412,602	Oct. 8	1299	339	49	262
Door	W. R. Weber	411,945	Oct. 1	249	64	49	51
Door-alarm. Electric	E. W. Taylor	416,971	Dec. 10	1304	330	49	1617
Door-alarm. Electrical	D. H. Strempfer	412,563	Oct. 8	1140	298	49	329
Door and casing. Fire-proof	M. Keilling	416,965	Dec. 3	167	45	49	1401
Door-check	W. W. Attebury	415,355	Nov. 19	1812	471	49	1000
Door-check	W. H. Clark	417,149	Dec. 10	1487	405	49	1672
Door-check	J. Conn	414,493	Nov. 5	483	122	49	838
Door-check	F. V. Gay and A. A. Wixom	416,056	Nov. 26	2897	736	49	1328
Door-check	R. P. Hickey	418,463	Dec. 31	3432	914	49	2096
Door-check	A. S. Johnson	416,365	Dec. 3	322	83	49	1432
Door-check	J. J. Krom	416,681	Dec. 3	794	217	49	1527
Door-check	E. Lawson	416,463	Dec. 3	463	126	49	1463
Door-check	V. C. Trahold	416,874	Dec. 10	1976	290	49	1590
Door-check. Pneumatic	D. C. Smiley, Jr., and T. A. Shea	416,758	Dec. 10	906	244 245	49	1556
Door. Double swinging	J. Welter	418,255	Dec. 31	3171	831	49	2921
Door. Fire-proof	M. Keilling	416,965	Dec. 3	167	45	49	1401
Door-hanger	W. Barry	418,638	Dec. 31	3767	984	49	2141

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Door-hanger	E. Y. Moore	418,530	Dec. 31	3606	941	49	2110
Door-hanger	A. L. Scranton	417,345	Dec. 17	1778	477	49	1736
Door-indicator.	H. Hineckley	417,724	Dec. 24	2358	621	49	1837
Door-lock	J. Connor	418,400	Dec. 31	3309	887	49	2067
Door-lock	I. R. Lash	415,210	Nov. 19	1583	407	49	1058
Door-lock	O. Seely	414,333	Nov. 5	2328	57	49	765
Door-lock	T. J. Young	413,333	Oct. 32	3307	599	49	469
Door lock. Sliding.	O. Seely	414,332	Nov. 5	2327	57	49	764
Door-mat.	T. J. and O. Q. Stille.	415,801	Nov. 26	3510	655	49	1347
Door-mat. Metal	G. S. Chase	414,375	Nov. 5	2326	73	49	796
Door-register. Automatic	C. W. Beck	412,588	Oct. 8	1181	310	49	239
Door-spring	E. F. Baudé	414,367	Nov. 5	2326	70	49	794
Door-spring	A. Dudden	414,384	Nov. 5	2326	76	49	798
Donut-tree-fastening for wagon-poles	G. Van Geem	418,546	Dec. 31	3628	947	49	2115
Donut-tree-spring	J. A. Simpson	416,757	Dec. 10	904	244	49	1556
Dough mixer and kneader	D. G. Clapp	413,417	Oct. 22	2428	631	49	482
Dough-raising apparatus	J. F. Cuse	413,466	Oct. 8	992	260	49	891
Dovetail-joint-closing machine	A. T. Linderman	411,923	Oct. 1	212	55	49	44
Draft attachment. Spring	H. Barber	415,318	Nov. 19	1751	455	49	1091
Draft-equalizer	E. G. Boynton and A. G. Brown	411,851	Oct. 1	117	30	49	25
Draft-equalizer	A. G. Brown	418,969	Dec. 31	3183	838	49	2026
Draft-equalizer	J. J. Bryant	413,167	Oct. 22	2055	534	49	430
Draft-equalizer	J. J. Bryant	416,322	Dec. 3	253	65	49	1419
Draft-equalizer	L. Genette	413,129	Oct. 15	1984	517	49	401
Draft-equalizer	J. Kaufman	412,548	Oct. 8	661	180	49	140
Draft-equalizer	L. Kendall	412,363	Oct. 8	708	186	49	147
Draft-equalizer	J. Koelle	416,338	Dec. 3	273	72	49	1423
Draft-equalizer	L. E. Lucas	413,072	Oct. 15	1888	494	49	392
Draft-equalizer	J. P. McDowell	414,432	Nov. 5	2327	97	49	817
Draft-equalizer	H. D. Mueller	418,529	Dec. 31	3606	941	49	2110
Draft-equalizer	T. R. Wilds	415,662	Nov. 19	2299	508	49	1198
Draft-gear for vehicles	G. M. Rust	416,732	Dec. 10	929	242	49	1555
Draft-gear for vehicles	P. H. Thompson	418,628	Dec. 31	3751	980	49	2138
Draft-hook	G. Harvey	417,180	Dec. 10	1327	416	49	1680
Draft-regulating device	J. Rockafeller	414,084	Oct. 29	3409	886	49	701
Drafting apparatus	G. F. Dyer	413,789	Oct. 29	2966	773	49	607
Drag-rake	J. H. Harrison	416,097	Nov. 26	267	774	49	1543
Drag-rake	J. H. Harrison and G. Cooksey	417,745	Oct. 15	1429	372	49	205
Drain-testing apparatus	B. Meriam	417,210	Dec. 10	1572	426	49	1689
Dramatic effects. Apparatus for producing illusory.	J. W. Knell	412,372	Dec. 31	3360	876	49	2058
Draw-heads. Manufacturing	E. N. Colwell	412,132	Oct. 15	1989	519	49	401
Draw-plate	W. Taylor	414,090	Oct. 29	3415	887	49	703
Drawer-fitting machine	G. W. Bugbee and F. Danner	417,983	Dec. 24	2748	723	49	1932
Drawer-guide	H. C. Clapp	416,030	Nov. 26	2638	747	49	1321
Drawer-guide for bureaus, &c.	D. C. Clapp	415,028	Oct. 15	1835	479	49	371
Drawer-lock	F. Brahson	413,128	Oct. 15	1983	517	49	399
Drawer-pull	H. C. Andross	414,625	Nov. 5	2326	178	49	876
Drawer-pull	D. N. Plume	414,857	Nov. 12	1047	370	49	933
Drawer-pull	J. K. Moffet	415,337	Oct. 8	1104	269	49	225
Drawing and measuring instrument. Combined	W. G. Curtis	416,719	Dec. 10	926	231	49	1547
Drawing-board	M. Bradley	416,437	Dec. 3	274	114	49	1455
Drawing-table	J. L. Mohan	414,067	Oct. 29	3389	881	49	697
Dredge. Pneumatic	J. A. F. Svenson	415,601	Nov. 19	2247	612	49	1208
Dredge. Suction	C. L. Riker	413,091	Oct. 15	1921	503	49	388
Dredging-boat	J. W. Brown	418,406	Dec. 31	3546	927	49	2097
Dredger. Steam vacuum	J. W. Newberry	417,933	Dec. 24	2675	705	49	1817
Dredgers. Setting spud and gage for	A. P. Payson	418,471	Dec. 31	3365	917	49	2039
Dredging apparatus	W. P. Humphreys	417,185	Dec. 10	1532	417	49	1681
Dredging apparatus	W. P. Humphreys	417,186	Dec. 10	1534	418	49	1681
Dredging-boat	A. Languet	412,341	Oct. 8	823	213	49	167
Dredging-conduit support	W. P. Humphreys	417,187	Dec. 10	1536	418	49	1682
Dredging-machine	T. Z. Cole	415,501	Nov. 19	2047	531	49	1148
Dredging-machine	T. Z. Cole	415,619	Nov. 19	2238	584	49	1186
Dredging-machine	T. Z. Cole	415,620	Nov. 19	2246	586	49	1188
Dredging-machine	W. A. Fletcher	418,000	Dec. 24	2781	733	49	1808
Dredging-scraper	J. C. Conitt	416,990	Dec. 10	1243	340	49	1625
Dress-form	J. B. Stone	418,994	Oct. 15	1781	465	49	359
Dress-shields. Machine for manufacturing	H. B. Smith	413,974	Oct. 29	3329	846	49	665
Dress-spring	R. H. Wolf	412,152	Oct. 1	534	141	49	108
Dress-spring	R. H. Wolf	412,153	Oct. 1	534	141	49	108
Dressing-comb	J. P. Noyes	413,678	Oct. 29	2912	732	49	577
Drier	See Clothes-drier.						
Drier for fruit and like articles.	Revolving drier.						
Drill	G. and F. Frick	417,014	Dec. 10	1273	348	49	1620
Drill	See Dentist's hand-drill.						
Drill	Dental fissure-drill.						
Drill	Seed-drill.						
Drill	E. M. Brown	415,610	Nov. 19	2236	580	49	1184
Drill	W. H. Gennep	413,394	Oct. 22	2400	622	49	485

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Spec.	Vol.	Page.
Drill	G. H. Tyler	417,610	Dec. 17	2191	593	49 1816
Drill-blade, Expanding	T. Herberg	414,411	Nov. 5	109	80	49 807
Drill-grinding machine	C. S. Walker	411,011	Oct. 1	109	39	49 84
Drill-press	A. P. Sibley	412,677	Oct. 8	1332	345	49 206
Drill-tubes. Attachment for holding	T. R. Crane	418,563	Nov. 31	3553	530	49 2009
Drills or senger-bits. Machine for making	R. Crichon	417,410	Dec. 17	1869	501	49 1754
Drilling-machine	V. F. Prentice	418,363	Dec. 31	3376	890	49 2002
Drilling-machine	V. Wirick	413,318	Oct. 29	2190	532	49 433
Drilling-machine sand-reel	W. Richards	413,733	Oct. 29	2994	533	49 591
Drilling-machine sand-reels. Gudgeon for	W. Richards	415,925	Nov. 26	3701	705	49 1298
Drilling railway-rails, &c. Machine for	E. N. Higley	415,790	Nov. 26	2478	647	49 1941
Driving-wheel	C. E. Swinerton	412,937	Oct. 15	1700	444	49 344
Drum	G. B. Durkee	416,327	Dec. 3	261	68	49 1421
Drum. Heating	A. W. Brock	412,723	Oct. 15	1400	360	49 999
Drum. Heating	A. G. Hamblin	416,601	Dec. 3	674	182	49 1503
Drum. Tubular heating	G. E. Leonard	417,874	Dec. 24	2555	680	49 1899
Dry closet	L. D. Smood	415,799	Nov. 26	2505	654	49 1346
Drying and carbonizing wool. Machine for	J. L. H. G. Simons	416,648	Dec. 3	746	202	49 1518
Drying and roasting apparatus	H. Frasch	418,315	Dec. 31	3721	854	49 2041
Drying and smoking butchers' products. House for	J. H. Schaefer	416,504	Dec. 3	522	141	49 1473
Drying-machine	J. K. Proctor and J. H. Knowles	411,536	Oct. 1	92	85	49 21
Drying tea, hops, sliced fruits, &c. Apparatus for	S. C. Davidson	416,157	Dec. 3	12	3, 4, 5	49 1371
Dumb-bell	T. H. Campbell	416,565	Dec. 3	620	169	49 1493
Dumping apparatus	G. W. L. Smith and J. F. Dresbach	416,439	Dec. 3	296	77, 78	49 1427
Dumping-cage. Automatic	B. Russell and H. T. Parsons	413,948	Dec. 3	296	77, 78	49 1427
Duplicating apparatus. Automatic	G. H. Davis	414,378	Nov. 5	299	73	49 796
Dust-collector	O. Kutsche	414,980	Nov. 19	1222	318	49 987
Dust-collector	G. R. Reeves	416,124	Nov. 26	3029	319	49 1353
Dust-collector	G. B. Reitz	415,368	Nov. 19	1826	476	49 1104
Dust-conveyer	W. S. Muller	416,936	Dec. 10	1165	318	49 1608
Dust-pan	L. Cline	411,855	Oct. 1	132	31	49 36
Dye. Azo	M. Ulrich	417,294	Dec. 17	1698	49	49 1723
Dye. Azo	M. Ulrich	417,295	Dec. 17	1699	49	49 1723
Dye. Azo	M. Ulrich	417,296	Dec. 17	1699	49	49 1723
Dye. Brown	H. D. Kendall	413,724	Oct. 29	2873	49	49 589
Dye-stuffs. Production of orange and red	G. Schultz	418,657	Dec. 31	3722	49	49 2147
Dye-stuffs. Production of yellow	J. Rosenack	418,923	Oct. 15	1753	49	49 355
Dyes. Fixing azo	F. Bayer	418,153	Dec. 31	3929	49	49 1992
Dyes. Making	R. Greville-Williams	412,148	Oct. 1	531	49	49 107
Dyes. Making	R. Greville-Williams	412,149	Oct. 1	531	49	49 107
Dyes. Making azo	R. Greville-Williams	416,145	Nov. 26	3030	49	49 1359
Dyes. Making azo	R. Greville-Williams	417,207	Dec. 10	1568	49	49 1698
Dyeing apparatus	T. B. Bowers	417,625	Dec. 17	2212	588	49 1820
Dyeing cotton, &c. Machine for	L. Weldon	415,889	Nov. 26	2630	688	49 1372
Dyeing. Leather	G. F. Landauer	418,414	Dec. 31	3421	894	49 2072
Dyeing-machine	G. H. Craven	417,968	Dec. 24	3624	695	49 1916
Dyeing-machine	W. A. Lortmer	412,887	Oct. 15	1630	426	49 331
Dyeing-machine. Wool	L. Weldon	415,880	Nov. 26	2631	688	49 1372
Dyeing-machine. Yarn	L. Weldon	415,898	Nov. 26	2639	687	49 1372
Dyeing or scouring apparatus	J. P. Delaunay, Sr.	417,706	Dec. 24	3553	616	49 1831
Dyeing wool. Apparatus for	L. Weldon	415,930	Nov. 26	2706	707	49 1289
Dynamometer	H. C. Spaulding	414,798	Nov. 5	643	168	49 868
Dynamics. Automatic regulator for	C. D. Jomney	417,487	Dec. 17	1992	531	49 1778
Dynamics. Discharge device for	O. B. Shallenberger	412,933	Oct. 15	1696	442	49 343
Ensel	L. S. McDonald	414,987	Nov. 12	1328	321	49 988
Eaves-trough	J. P. Abbott	417,657	Dec. 17	2252	599	49 1928
Eaves-trough	C. Mendell	418,207	Dec. 31	3105	814	49 2008
Eccentric. Shifting	J. M. Branch	417,901	Dec. 24	2625	692	49 1908
Edger for cutting dimension lumber. Gang-	J. N. Morrow and A. N. Helme	412,646	Oct. 8	1278	333	49 257
Educational appliance	A. Scarlett	412,044	Oct. 1	382	98	49 77
Educational globe	O. D. Gray	418,455	Dec. 31	3482	911	49 2083
Egg-beater	L. Nelleson	414,566	Nov. 5	591	152	49 857
Egg-carrier	C. A. Perry	415,439	Nov. 26	2631	689	49 1373
Egg-case	G. D. Corey	418,459	Dec. 31	3474	909	49 2082
Egg-case	J. W. Almack	413,539	Oct. 29	3034	790	49 620
Egg-case	E. Butterick	417,469	Dec. 17	1952	521	49 1771
Egg-case filler	T. Mart	416,297	Dec. 3	218	502	49 1411
Egg-case filler	C. A. Miller	414,437	Nov. 5	375	83	49 815
Egg packing grate and tester. Combined	H. A. Brooks and W. D. Baldwin	418,107	Dec. 24	2946	772	49 1968
Electric alarm	R. D. O. Smith	416,381	Dec. 3	748	92	49 1477
Electric battery	J. A. Barrett	414,627	Nov. 26	2631	689	49 1373
Electric battery	C. A. Hussey	414,389	Nov. 5	66	15	49 751
Electric battery	C. A. Hussey	414,318	Nov. 5	206	51	49 779
Electric cam	H. S. Prentiss	417,742	Dec. 24	2287	628	49 1861
Electric circuit	J. C. Wilson	417,304	Dec. 17	1709	460	49 1725
Electric circuit	J. C. Wilson	417,305	Dec. 17	1710	460	49 1725
Electric circuit. Automatically closing an interrupted	L. Schaefer	413,735	Oct. 29	2889	753	49 292
Electric circuit-closing device	W. C. Johnston, Jr.	413,758	Oct. 15	1451	379	49 298
Electric-circuit controller	F. A. Lane	412,758	Dec. 24	2662	702	49 1915
Electric circuit	C. R. Ask	412,439	Oct. 8	969	254	49 196
Electric conductor	J. J. Saville and J. H. Winspear	417,095	Dec. 10	1398	381	49 1655
Electric conductors. Device for suspending	S. H. Short	417,747	Dec. 24	2285	630	49 1863
Electric conductors. Drop-switch for	C. J. Van Depoele	417,135	Dec. 17	1710	460	49 1725
Electric conductors. Spring-switch for	C. J. Van Depoele	417,136	Nov. 5	661	172	49 871
Electric conduit	J. P. Cushing	412,476	Oct. 8	1020	266	49 207

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. et	Vol.	Page.
Electric conduit. Underground.	J. Dell.	417,992	Dec. 24	2764	729	49	1935
Electric-current indicator.	J. P. Mehren	414,866	Nov. 12	1046	270	49	933
Electric-current indicator.	G. Pfannkuche	414,076	Oct. 29	3339	819	49	699
Electric-current indicator.	J. J. Wood	412,354	Oct. 8	540	233	49	171
Electric current. Regulating the tension of the	C. Dählmann.	417,668	Dec. 17	2270	692	49	1800
Electric-current regulator.	F. Thoms	413,984	Oct. 29	3254	850	49	668
Electric currents. Distribution of.	F. J. Patten	418,655	Dec. 31	3759	988	49	2146
Electric currents. Generation and distribution of.	F. J. Patten	418,652	Dec. 31	3776	988	49	2145
Electric currents. Meter for alternating	O. B. Shallenberger	414,593	Nov. 5	638	167	49	847
Electric currents. System of distribution by alternating	O. B. Shallenberger	412,932	Oct. 15	1694	443	49	342
Electric currents. Transformer or converter for alternating	L. Paget	413,810	Oct. 29	2993	779	49	911
Electric energy. Utilizing natural	M. W. Dewey	414,943	Nov. 12	1164	304	49	676
Electric generator. Dynamo.	W. Stanley, Jr.	418,659	Dec. 31	3795	989	49	2147
Electric-generator governor	P. J. Tracy	412,567	Oct. 8	1145	289	49	733
Electric generators. Ring-armature for.	G. Pfannkuche	414,245	Nov. 5	104	35	49	559
Electric heater	M. B. Leonard	414,714	Nov. 12	825	214	49	910
Electric indicator	D. W. Edgecomb and C. A. Terry	414,879	Nov. 12	1072	275	49	927
Electric indicator	F. E. Morgan	414,868	Nov. 12	1048	270	49	953
Electric-light carbon	L. Sanderson	418,474	Dec. 31	3509	918	49	2090
Electric-light fixture	L. Sanderson	418,636	Dec. 31	3769	963	49	2143
Electric-light post.	P. J. Dinn	414,686	Nov. 12	785	204	49	902
Electric-light shade or reflector	W. B. Lawrence	416,692	Dec. 3	795	217	49	1528
Electric-light support	A. Dawes.	414,798	Nov. 12	941	244	49	934
Electric lights. Ceiling-plate for	R. Schardt and W. Lutzenberger.	416,469	Dec. 10	1559	285	49	1586
Electric lighting. System of arc and incandescent	H. H. Sawyer	417,085	Dec. 17	2596	698	49	1755
Electric lighting. System of arc and incandescent	W. Hochhausen	416,611	Dec. 3	688	186	49	1507
Electric lighting. System of arc and incandescent	W. Hochhausen	416,612	Dec. 3	690	186	49	1507
Electric lock	G. A. Harter	416,103	Nov. 26	2979	776	49	1344
Electric machine.	A. Schmid	416,340	Dec. 3	127	35, 36	49	1363
Electric machine. Compound dynamo.	F. B. Rae	417,089	Dec. 10	1389	380	49	1654
Electric machine. Dynamo.	T. E. Daniels, Jr.	415,190	Nov. 19	1556	401	49	1052
Electric machine. Dynamo.	R. Eickemeyer	413,357	Oct. 22	8312	250	49	479
Electric machine. Dynamo.	R. Eickemeyer	413,363	Oct. 22	3360	611	49	477
Electric machine. Dynamo.	H. Gelsenbühner	414,900	Nov. 12	1104	294	49	963
Electric machine. Dynamo.	J. A. Kingdon	412,854	Oct. 15	1583	413	49	322
Electric machine. Dynamo.	G. Pfannkuche	413,148	Oct. 15	3013	526	49	406
Electric machine. Dynamo.	W. Seufert.	414,659	Nov. 5	741	191	49	886
Electric machine. Dynamo.	C. F. Winkler	412,349	Oct. 8	835	218	49	170
Electric machine. Dynamo.	C. F. Winkler	412,351	Oct. 8	837	219	49	170
Electric machine. Dynamo.	C. F. Winkler	412,352	Oct. 8	838	219	49	170
Electric machine. Magneto.	W. H. Cooley	416,443	Dec. 3	432	116	49	1456
Electric machine. Magneto.	W. Gillett	418,120	Dec. 24	2970	778	49	1973
Electric machine or motor. Dynamo.	A. L. Riker	416,013	Nov. 26	2927	740	49	1315
Electric-machine regulator. Dynamo.	C. F. Winkler	412,353	Oct. 8	839	219	49	171
Electric-machine regulator. Dynamo.	W. H. Elkins	412,700	Oct. 8	1355	332	49	373
Electric machines. Automatic regulator for dynamo.	J. J. Wood	418,302	Dec. 31	3945	1848	49	2036
Electric machines. Current-regulator for dynamo.	J. J. Wood	418,303	Dec. 31	3251	850	49	2037
Electric machines. Switch for dynamo.	W. Hochhausen	412,280	Oct. 22	2222	578	49	452
Electric machines. Time-recording device for dynamo.	H. C. Spaulding	414,339	Nov. 5	235	59	49	786
Electric meter	P. S. Bates	415,491	Nov. 19	2024	525	49	1144
Electric meter	W. H. Douglas	413,038	Oct. 15	1847	483	49	373
Electric meter	A. J. Frager	418,559	Dec. 31	3646	933	49	2118
Electric meter	M. L. Hansen	416,604	Dec. 3	678	173	49	1504
Electric meter	C. A. Pratt	418,472	Dec. 31	3506	918	49	2049
Electric meter	E. V. Siemens	415,577	Nov. 19	2177	568	49	1175
Electric meter	E. V. Siemens	415,747	Nov. 26	3430	988	49	1232
Electric meter	E. Thomson	415,748	Nov. 26	2488	636	49	1233
Electric meter	E. Thomson	416,530	Dec. 3	298	78	49	1428
Electric motor. Compensating	H. Lemp	416,339	Dec. 3	274	72, 73	49	1423
Electric motor	E. S. Nepp	412,329	Oct. 8	1094	287	49	223
Electric motor	P. Diehl	411,969	Oct. 1	291	76	49	60
Electric motor	P. Diehl	411,963	Oct. 1	295	76	49	60
Electric motor	H. Growitt	412,177	Oct. 1	575	150	49	116
Electric motor	F. J. Patten	413,065	Oct. 15	1911	500	49	386
Electric motor	F. J. Patten	415,654	Dec. 31	3788	988	49	2148
Electric motor	C. C. Peck	411,833	Oct. 1	86	33, 34	49	20
Electric motor	H. B. Pullman	415,350	Nov. 19	1807	470	49	1100
Electric-motor governor	N. Tesla	416,194	Dec. 3	65	19	49	1381
Electric-motor regulator	C. L. Jaeger	415,641	Nov. 19	2272	509	49	1103
Electric-motor support. Switch for	N. S. Keith	416,169	Dec. 3	32	11	49	1375
Electric motors. Coupling	S. H. Short.	415,070	Nov. 12	1340	351	49	1012
Electric motors. Governor or regulator for.	W. Christy	415,289	Nov. 5	156	40	49	770
Electric motors. Regulating	W. W. Rice, Jr.	416,746	Dec. 10	1688	219	49	1533
Electric motor. Regulating	R. Macrae	418,658	Dec. 15	1641	441	49	241
Electric motor. Regulating	M. Immsch	414,652	Oct. 29	3368	876	49	693
Electric regulator	L. Gutmann	414,043	Oct. 29	3368	873	49	688

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. k.	Vol.	Page.
Electric regulator.....	W. Hochhausen	413,279	Oct. 22	2218	577	49	452
Electric-resistance-indicating device.....	C. D. Haslins and C. E. Scribner.....	414,310	Nov. 5	197	49	49	777
Electric signal and brake device.....	J. F. and C. A. Cox.....	414,295	Nov. 5	168	42	49	771
Electric signal-controller.....	G. S. Neu.....	413,330	Oct. 8	1095	287	49	923
Electric subway.....	I. L. Johnson.....	412,095	Oct. 1	452	117	49	91
Electric switch.....	F. M. Bennett.....	412,159	Oct. 1	544	143	49	110
Electric switch.....	R. C. Hall.....	413,512	Oct. 22	2563	664	49	519
Electric switch, Automatic.....	G. H. Wittingham.....	415,467	Nov. 19	2919	594	49	1143
Electric terminal.....	C. McIntire.....	412,889	Oct. 15	1632	426	49	331
Electric transformer.....	E. Thomson.....	415,749	Nov. 26	2437	636	49	1233
Electric trumpet.....	J. Zigang.....	415,900	Nov. 26	2792	731	49	1308
Electric-wire conduit.....	J. W. Richards and J. B. Hall.....	414,327	Nov. 5	217	55	49	752
Electric wires, Pole for.....	L. R. Greene.....	415,324	Nov. 19	1763	457	49	1093
Electric wires, Pole for.....	L. R. Greene.....	415,325	Nov. 19	1763	458	49	1094
Electric wires, Screw-clip for.....	G. E. Huff.....	416,369	Dec. 31	3356	576	49	2058
Electrical apparatus.....	C. D. Baker and L. G. Brownson.....	417,917	Dec. 17	1580	428	49	1700
Electrical conductor.....	U. H. Balsey.....	417,402	Dec. 17	1981	406	49	1752
Electrical conductors, Conduit for.....	J. Tatham.....	417,688	Dec. 17	2299	600	49	1836
Electrical conduits, Coupling-box for.....	S. P. Denison.....	413,133	Oct. 15	1992	519	49	401
Electrical conduits, Distributing-box for.....	C. D. Baker and L. G. Brownson.....	417,917	Dec. 17	1580	428	49	1700
Electrical conduits, Distributing-box for.....	E. S. Perot.....	416,335	Dec. 3	119	31	49	1392
Electrical distribution by alternating currents, System of.....	J. Hopkinson.....	414,541	Nov. 5	552	141	49	851
Electrical distribution by secondary batteries, System of.....	S. C. C. Currie.....	415,706	Nov. 26	2463	643	49	1238
Electrical distribution for street-lighting, System of.....	O. B. Shallenberger.....	411,970	Oct. 1	977	71	49	56
Electrical distribution of currents, System of.....	C. J. Van Depole.....	417,634	Dec. 17	2250	597	49	1896
Electrical distribution system.....	E. Thomson and E. W. Rice, Jr.....	413,293	Oct. 22	2247	583	49	458
Electrical distribution, System of.....	F. J. Patten.....	416,633	Dec. 31	3787	968	49	2145
Electrical regulating apparatus.....	H. J. Conant.....	414,191	Nov. 5	17	4	49	742
Electrical switch-board.....	J. Wood.....	412,516	Oct. 15	1525	399	49	312
Electro-magnetic brake and traction-increasing device, Combined.....	E. E. Ries.....	414,998	Nov. 12	1240	323	49	929
Electro-magnetic motor.....	N. Tesla.....	416,191	Dec. 3	61	18	49	1381
Electro-magnetic motor.....	N. Tesla.....	416,192	Dec. 3	64	19	49	1381
Electro-magnetic motor.....	N. Tesla.....	416,195	Dec. 3	80	19	49	1382
Electro-magnetic motor.....	N. Tesla.....	418,248	Dec. 31	3165	829	49	2020
Electro-magnetic motors, Operating.....	N. Tesla.....	416,192	Dec. 3	62	18	49	1381
Electro-magnetic separator.....	C. K. Moffatt.....	411,899	Oct. 1	153	47	49	37
Electro-medical battery.....	F. Morrison.....	415,345	Nov. 19	1794	406	49	1099
Electro-therapeutic apparatus.....	F. J. Kneuper.....	417,992	Dec. 24	2652	700	49	1913
Electrode for medical batteries.....	H. B. Cox.....	412,105	Oct. 1	553	144	49	111
Electrode for secondary batteries.....	J. Y. Bradbury and F. J. Stone.....	415,936	Nov. 26	2720	711	49	1293
Electrode for secondary batteries.....	C. Payson.....	413,329	Nov. 19	1767	459	49	1094
Electrode, Secondary-battery.....	H. G. Osburn.....	418,140	Dec. 31	3073	757	49	1778
Electrode, Secondary-battery.....	H. Tudor.....	413,112	Oct. 15	1952	509	49	393
Electrodes for secondary batteries, Constructing.....	W. H. Allen.....	415,490	Nov. 19	2023	525	49	1144
Electrodes for secondary batteries.....	J. K. Pumpelly.....	416,126	Nov. 10	1358	379	49	1653
Electrodes of secondary batteries, Making supports for.....	W. F. Smith.....	416,126	Nov. 26	2653	757	49	1354
Electroplated, Clamp for holding articles to be.....	W. A. Dunlap.....	414,860	Nov. 12	1037	267	49	951
Elevating-chair, Combination.....	N. Sorensen.....	417,750	Dec. 24	2400	632	49	1863
Elevator.....	See Bucket-elevator, Harvesting-machine elevator, Cotton-elevator, Envelope machine elevator, Sucker-rod elevator, Grain-elevator, Toy elevator.						
Elevator.....	P. H. Brodessor.....	417,225	Dec. 17	1594	432	49	1703
Elevator.....	W. W. Dingee.....	414,386	Nov. 5	291	74, 75	49	796
Elevator.....	S. K. Humphrey.....	412,956	Nov. 15	1724	451	49	949
Elevator.....	W. H. Knapp.....	414,712	Nov. 12	821	214	49	910
Elevator.....	A. C. Newton.....	418,051	Dec. 24	2852	751	49	1932
Elevator.....	H. Parsons.....	417,274	Dec. 17	1668	451	49	1717
Elevator.....	C. R. Pratt.....	417,087	Dec. 10	1386	379	49	1653
Elevator.....	J. W. Roberts.....	416,301	Dec. 3	223	58	49	1412
Elevator attachment.....	D. H. Nickerson.....	416,487	Dec. 3	406	134	49	1469
Elevator-bucket.....	H. W. Avery.....	415,236	Nov. 19	1613	416	49	1064
Elevator-bucket.....	W. G. Avery.....	414,483	Nov. 5	466	118	49	835
Elevator-bucket.....	L. D. Howard.....	413,059	Oct. 15	1875	489	49	379
Elevator-bucket.....	L. D. Howard.....	413,060	Oct. 15	1876	490	49	379
Elevator-bucket.....	L. D. Howard.....	413,061	Oct. 15	1877	490	49	379
Elevator-bucket.....	L. D. Howard.....	413,062	Oct. 15	1878	490	49	380
Elevator-bucket.....	A. Miller.....	412,775	Oct. 15	1473	384	49	302
Elevator-bucket.....	A. Miller.....	414,829	Nov. 12	987	255	49	942
Elevator-case.....	A. V. Pitts.....	414,721	Nov. 12	836	217	49	912
Elevator-gate.....	N. Schleesser.....	415,848	Nov. 26	2574	673	49	1260
Elevator-gate-operating mechanism.....	C. J. Latz.....	416,037	Nov. 26	2670	750	49	1323
Elevator-lock.....	H. I. Coe, J. L. Smedley, and W. A. Cromwell.....	413,297	Oct. 22	2254	585	49	459
Elevator-locking device.....	C. F. Sullivan.....	414,128	Oct. 29	3468	901	49	714
Elevator or carrier apron, Endless.....	T. J. Walden.....	417,065	Dec. 10	1354	371	49	1647
Elevator safety device.....	H. Albert.....	412,059	Oct. 1	406	104	49	81
Elevator safety device.....	W. P. Gibson.....	412,329	Oct. 8	803	208	49	164
Elevator safety device.....	M. T. Greenleaf.....	416,010	Dec. 24	2794	737	49	1940
Elevator safety device.....	J. Hatch.....	416,000	Nov. 26	2507	736	49	1311

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	De.	Vol.	Page.
Elevator safety device.....	F. S. King.....	416,969	Dec. 3	336	85	49	1433
Elevator safety device.....	E. LaRose.....	416,112	Nov. 26	3003	789	49	1348
Elevator safety device.....	E. Moore.....	417,485	Dec. 17	2008	536	49	1781
Elevator safety device.....	E. Ring.....	413,632	Oct. 22	2736	709	49	553
Elevator speed-governor mechanism.....	W. P. Gibson.....	418,446	Dec. 31	3406	891	49	2069
Elevator starting and stopping device.....	C. W. Baldwin.....	416,983	Dec. 10	1217	334	49	1020
Elevator valve mechanism.....	W. P. Gibson.....	413,327	Oct. 8	799	208	49	163
Elevator valve-operating device.....	W. P. Gibson.....	413,330	Oct. 8	805	208	49	164
Elevator valve-operating mechanism.....	C. Behn.....	414,005	Oct. 29	3291	858	49	676
Elevator valve-operating mechanism.....	W. P. Gibson.....	413,334	Oct. 8	814	211	49	165
Elevators. Automatic stop mechanism for.....	W. P. Gibson.....	413,328	Oct. 8	801	208	49	163
Elevators. Electrically-controlled speed-governor mechanism for.....	W. P. Gibson.....	413,332	Oct. 8	810	210	49	164
Elevators. Electrically-controlled valve-operating mechanism for.....	W. P. Gibson.....	413,333	Oct. 8	812	211	49	165
Embalming apparatus.....	E. H. Horsey.....	416,923	Dec. 3	163	30	49	1389
Embroidering-machine.....	E. and R. Cornely.....	417,311	Dec. 17	1828	468	49	1377
Embroidering-machine.....	R. T. Smith.....	416,811	Dec. 10	982	266	49	1371
Embroidering-machine.....	R. T. Smith.....	417,286	Dec. 17	1686	455	49	1730
Embroidery-cutting machine.....	C. White.....	412,573	Oct. 8	1153	303	49	234
Embroidery-frame.....	C. E. Bentley.....	414,184	Nov. 5	8	2	49	740
Embroidry-holder.....	J. D. Lalor.....	417,283	Dec. 17	1632	442	49	1710
Enameler's apparatus.....	S. D. Keene.....	412,853	Oct. 15	1581	412	49	322
Enameling metal surface.....	E. J. and W. Valtrath.....	415,485	Nov. 19	2016	49	49	1145
End-board fastening for wagons.....	R. Allen.....	412,941	Oct. 15	1704	445	49	345
End-gate.....	W. C. Bee.....	413,164	Oct. 22	2022	523	49	419
End-gate fastening.....	W. E. George and J. A. McGinness.....	414,305	Nov. 5	316	80	49	802
End-gate. Wagon.....	A. E. Beason. (Reissue).....	11,040	Nov. 19	2349	613	49	1309
Engines.							
See Chemical-engine. Hydrocarbon or gas engine.							
Compound engine. Petroleum-motor engine.							
Dental engine. Pneumatic engine.							
Fire-engine. Pumping-engine.							
Gas-engine. Pumping-engine.							
Gas and compressed-air engine. Rotary engine.							
Gas or petroleum motor engine. Steam-engine.							
Hot-air engine. Traction-engine.							
Hydrocarbon-engine.							
Engine.....	J. A. Clarke.....	418,390	Dec. 31	3003	887	49	2067
Engine.....	N. H. Edgerton.....	416,147	Nov. 26	3060	794	49	1330
Engine and shafting bed.....	V. W. Blanchard.....	413,895	Oct. 29	3121	814	49	638
Engine-bed.....	V. W. Blanchard.....	413,912	Oct. 29	3146	822	49	645
Engine-cylinder. Steam.....	V. W. Blanchard.....	413,899	Oct. 29	3152	825	49	649
Engine-link.....	J. A. Stiles and G. F. Cross.....	416,965	Dec. 10	1199	328	49	1615
Engine link-motion.....	C. L. Eberle.....	416,723	Dec. 10	861	232	49	1547
Engine lubricator. Steam.....	H. E. Kay.....	412,593	Oct. 8	898	224	49	132
Engine lubricator. Steam.....	C. Verland.....	414,795	Nov. 12	919	238	49	929
Engine safety-stop.....	L. E. Leary.....	415,277	Nov. 19	1689	436	49	1077
Engine-spring ends. Die for making.....	G. H. Smith.....	416,017	Nov. 26	2836	741	49	1317
Engine-stopping mechanism.....	H. Field.....	414,877	Nov. 12	996	258	49	944
Engines. Eccentric-book for steam.....	S. S. Bobbitt and A. Randolph.....	413,641	Oct. 29	2756	715	49	567
Engines. Machine for milling the valve-ports of.....	J. Davis.....	414,756	Nov. 12	880	228	49	921
Engines. Safety-cup for steam.....	W. B. Pearson.....	418,357	Dec. 31	3341	872	49	2025
Engineer's seat.....	H. W. Knapp.....	417,192	Dec. 10	1544	430	49	1653
Engraving-machine.....	T. C. Eberhardt.....	415,450	Nov. 19	1952	507	49	1139
Engraving-machine.....	G. M. Guernant.....	414,526	Nov. 5	530	137	49	847
Envelope.....	L. N. Frymaire and F. S. Derr.....	412,325	Oct. 8	795	325	49	162
Envelope and stamp moistener.....	C. F. Mosman.....	418,211	Dec. 31	3108	815	49	2009
Envelope. Coin.....	G. Desa.....	413,351	Oct. 22	2538	606	49	474
Envelope-fastener.....	G. W. McGill.....	414,071	Oct. 29	3383	882	49	698
Envelope-fastener.....	G. W. McGill.....	414,072	Oct. 29	3334	882	49	698
Envelope-gumming device.....	E. W. Blackhall and R. Anderson.....	418,348	Dec. 31	3327	868	49	2052
Envelope-machine.....	C. H. Heywood.....	416,105	Nov. 26	2981	777	49	1315
Envelope-machine elevator.....	E. W. Blackhall and R. Anderson.....	417,973	Dec. 31	3736	719	49	1928
Envelope opener and sealer and stamp-moistener.....	C. C. Lance.....	411,862	Oct. 1	128	33	49	27
Envelopes, &c. Fastener for.....	G. W. McGill.....	414,073	Oct. 29	3385	882	49	698
Equalizer. Four-horse.....	P. Baker.....	416,822	Dec. 10	996	260	49	1574
Eraser.....	T. H. Costello.....	415,377	Nov. 19	1857	479	49	1106
Eraser. Blackboard.....	J. F. Palmer.....	412,576	Oct. 15	1606	419	49	367
Eraser. Blackboard.....	T. F. Palmer.....	412,116	Oct. 1	475	124	49	95
Eraser. Blackboard.....	L. P. Riddle.....	416,184	Dec. 3	53	16	49	1379
Eraser. Ink.....	M. Young.....	413,798	Oct. 29	2978	776	49	609
Eraser. Rubber.....	G. W. Lee.....	413,599	Oct. 22	2603	700	49	514
Eraser. Rubber.....	F. W. B. McCready.....	417,073	Dec. 10	1364	373	49	1649
Evaporating apparatus.....	T. Gantt.....	416,455	Dec. 3	450	122	49	1400
Evaporating apparatus.....	T. Gantt.....	416,456	Dec. 3	452	123	49	1460
Evaporating apparatus.....	G. W. Lee.....	413,541	Nov. 19	2110	548	49	1123
Evaporating apparatus.....	J. W. Norton.....	414,436	Nov. 5	331	82, 99	49	818
Evaporating-pau.....	J. L. Becker.....	412,231	Oct. 8	654	172	49	136
Evaporator.....							
See Fruit-evaporator. Sugar-sap evaporator.							
Evaporator.....	T. Gantt.....	414,696	Nov. 12	799	208	49	805
Evaporator.....	E. Gillet.....	418,642	Dec. 31	3773	985	49	2142

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.
				Spec.	Dr. et	
Evaporator for disinfectants, &c.	G. E. Wheeler	417,748	Dec. 24	2556	671	49 1892
Evaporator for disinfectants, &c.	J. O. Woods	413,708	Oct. 29	2847	742	49 564
Everet. Four-horse.	W. McGregor	417,083	Nov. 5	368	97	49 157
Everet. Three-horse.	H. G. Reinecker and R. Lang	417,091	Dec. 10	1393	380	49 1654
Excavating bucket or grab	A. Blauvelt	417,975	Dec. 24	2739	730	49 1929
Excavating coal, &c. Device for	T. McBride and E. Fisher	412,524	Oct. 8	1087	731	49 230
Excavating. Grab-bucket or digger for	H. Grafton	416,936	Dec. 40	1022	275	49 1578
Excavator	J. Cable	418,272	Dec. 31	3197	837	49 3036
Excavator	T. McBride and E. Fisher	412,536	Oct. 8	1090	285	49 222
Excavator, separator, and conveyer. Sand.	G. E. De Groat and T. F. Farrell	417,773	Dec. 24	2435	642	49 1871
Exercising apparatus	A. D. Whitely	418,257	Dec. 31	3174	832	49 2022
Exercising-chair	A. F. Caldwell	414,675	Nov. 12	769	199	49 900
Exercising-machine. Electric	E. W. Robinson	418,297	Dec. 31	3131	821	49 2013
Exhibiting device.	F. N. Cottle	412,698	Oct. 8	1333	352	49 749
Exhibiting goods. Stand for	W. Bardsley	414,181	Nov. 5	4	1	49 974
Exhibiting machine. Sight	F. Euphrat	414,764	Nov. 12	892	231	49 923
Exhibiting shoe-laces, &c. Case for	J. Paton	414,992	Nov. 12	1230	322	49 990
Exhibitor. Automatic.	W. H. Rodgers	412,203	Oct. 1	607	158	49 122
Expandible wheel for endless carriers, &c.	T. McBride and E. Fisher	412,527	Oct. 8	1091	286	49 222
Expansion-trap	F. G. Botsford	416,357	Dec. 3	606	165	49 1490
Explosive compound	J. F. A. Mumm	417,577	Dec. 17	2145	511	49 1806
Explosive energy. Method of and apparatus for utilizing	W. Vogel	417,123	Dec. 10	1444	393	49 1664
Explosives. Manufacture of	W. E. Liardet	417,429	Dec. 17	1899	492	49 1761
Explosives. Manufacture of	R. Liebert	413,070	Oct. 15	187	7	49 381
Extension-bit	W. S. Whiting	415,968	Nov. 26	2790	730	49 1307
Extension-table	H. Bauer	415,376	Nov. 19	1836	479	49 1106
Extension-table	G. Schmitt	416,484	Dec. 3	403	109	49 1450
Extension-table	W. Williams and C. W. Munz	416,531	Dec. 3	569	155	49 1483
Extractor.						
See Juice-extractor. Spike-extractor.						
Lemon-juice ex- Stamp-extractor.						
tractor.						
Extracts. Apparatus for making.	I. Giles	417,168	Dec. 10	1569	411	49 1677
Extracts. Apparatus for obtaining.	L. Schultz	417,096	Dec. 10	1400	382	49 1656
Extracts. Making	J. W. Hyatt	416,107	Nov. 26	2991	779	49 1347
Extracts. Preparing logwood	W. W. Macfarlane	417,492	Dec. 17	2005	521	49 1781
Eye-glass-frame	L. Riemschneider	416,837	Dec. 10	1051	285	49 1385
Eye-glasses	A. A. Coving	414,106	Oct. 29	3440	895	49 708
Eye-glasses	J. Currin	412,239	Oct. 8	671	177	49 140
Eye-glasses	C. S. Wells	416,528	Dec. 3	565	153	49 1482
Eye-glasses	W. S. Wells	418,442	Oct. 8	1056	282	49 105
Eyelet-setting machine	D. H. Coles	417,988	Dec. 24	2757	736	49 1934
Fabric.						
See Carpet fabric. Terry fabric.						
Metallic fabric. Wire fabric.						
Roofing fabric. Woven fabric.						
Satin-faced fabric.						
Fabric-trimming machine	W. F. Beardslee and C. Russell	413,608	Oct. 22	2704	703	49 547
Fabrics. Apparatus for treating	G. A. Schleber	416,380	Dec. 3	346	91	49 1437
Fabrics. Finish for	J. M. Me row	414,236	Nov. 5	88	20	49 756
Fabrics. Forming a border on the edges of	J. M. Merrow	413,077	Oct. 15	1896	496	49 383
Fabrics. Machine for beating and combing cut-pile	J. Baer	412,450	Oct. 8	970	254	49 197
Fabrics. Machine for splitting double piled	E. R. and T. H. Handy	417,915	Dec. 24	2641	697	49 1911
Fabrics. Ornamenting the edges of	J. M. Merrow	414,233	Nov. 5	82	19	49 754
Fabrics. Producing lace-tucks on	J. Wiget	417,456	Dec. 17	1937	517	49 1767
Fan attachment for rockers	P. Witman	416,981	Dec. 10	1215	333	49 1619
Fan attachment for rocking-chairs	C. S. Milton	417,757	Dec. 10	1056	282	49 1647
Fan. Automatic	F. Comminge	417,406	Dec. 17	1864	499	49 1753
Fan. Centrifugal	F. Pelzer	416,070	Nov. 26	2923	762	49 1334
Fan. Electric	P. Diehl	417,474	Dec. 17	1974	526	49 1775
Fan. Electric-motor	P. Diehl	414,758	Nov. 12	823	229	49 922
Fan for ventilating	H. C. Koomts	415,939	Nov. 26	2363	668	49 1258
Fan-motor. Electric	P. Diehl	414,757	Nov. 12	822	228	49 922
Fan. Power	P. Murray, Jr.	411,826	Oct. 1	52	9	49 15
Fan. Power	P. Murray, Jr.	412,404	Oct. 8	911	239	49 185
Fan. Power-actuated	J. Poulson	415,947	Nov. 26	2736	715	49 1296
Fan. Rotary	W. H. and W. P. Jones	415,458	Nov. 19	1970	511	49 1133
Fare-boxes. Safety attachment for	L. F. Heck	416,915	Dec. 10	1136	311	49 1602
Fare collector. Passenger	A. W. Berne	414,185	Nov. 5	11	2	49 741
Fare register.	P. Diehl	410,211	Dec. 3	88	25	49 1346
Farm-gate	J. W. Pollard and J. B. Stockton	417,177	Dec. 17	1717	473	49 1715
Farm-gate	I. S. Sberwig	412,128	Oct. 1	496	131	49 100
Farm-gate	R. Thompson	417,118	Dec. 10	1431	390	49 1661
Faucet	A. P. Howes	417,916	Dec. 24	2543	697	49 1911
Faucet	A. P. Howes	417,917	Dec. 24	2544	698	49 1911
Faucet	J. B. Jones	413,518	Oct. 22	2572	667	49 520
Faucet. Beer	H. Kell	412,257	Oct. 22	2181	569	49 445
Faucet. Measuring	T. L. Whiting	418,601	Dec. 31	3713	970	49 2131
Faucet. Self-closing	J. L. Rice	413,542	Oct. 8	1110	291	49 226
Feed-bag	C. R. Monfort	417,437	Dec. 17	1909	510	49 1769

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. &c.	Vol.	Page.
Feed-box.	W. V. Snyder	412,304	Oct. 8	763	198	49	1251
Feed-box for poultry.	A. S. Sherman.	415,742	Nov. 26	2484	633	49	1366
Feed-cutter.	P. Bostrom	415,405	Nov. 19	1878	489	49	1114
Feed-cutter	J. W. Marshall	412,634	Oct. 1	370	95	49	74
Feed-cutter	E. W. Ross	417,743	Dec. 24	2288	629	49	1861
Feed-cutter	E. W. Ross	417,744	Dec. 24	2300	629	49	1862
Feed-cutter	R. A. Wiseman	418,080	Dec. 31	3712	969	49	2131
Feed-cutter box.	C. C. Smalley	412,302	Oct. 8	760	197	49	125
Feed-rack.	J. W. Gill	418,006	Dec. 24	2791	736	49	1940
Feed-regulator	M. A. Swing	416,968	Dec. 10	1301	329	49	1616
Feed-trough	J. M. Le Fever	414,814	Nov. 12	962	250	49	937
Feed-trough attachment	M. Michels	415,392	Nov. 19	1859	451	49	110
Feed-water heater	F. D. Langenheim	412,927	Oct. 15	1687	440	49	341
Feed-water heater	G. W. Penn	415,254	Nov. 19	1643	424	49	1070
Feed-water heater and filter	J. D. Sullivan	412,137	Oct. 1	513	135	49	103
Feed-water heater and purifier	J. J. Hoppes	412,886	Oct. 15	1028	425	49	330
Feed-water heating and purifying apparatus.	J. H. Blessing	412,912	Oct. 15	1664	434	49	337
Feed-water purifier	G. B. Field	412,738	Oct. 15	1418	371	49	292
Feed-water purifier	L. A. Smith and J. H. Kruse	416,188	Dec. 3	57	17	49	1380
Feed-water purifier and scale-arrester	B. F. Field	416,032	Nov. 26	2861	748	49	1361
Feed-water regulator.	R. Willette	416,978	Dec. 10	1212	332	49	1612
Feed-water regulator and low-water alarm.	F. Cook and B. Thoens	417,150	Dec. 10	1468	405	49	1078
Feeder. Automatic	J. H. Blessing	412,910	Oct. 15	1660	433	49	336
Feeder. Automatic horse	W. P. Kellogg	415,389	Nov. 19	1855	453	49	1109
Feeder. Coagulant.	J. H. Blessing	412,911	Oct. 15	1662	434	49	337
Feeder. Coagulant.	J. W. Hyatt	417,034	Dec. 10	1305	356	49	1636
Feeder. Coagulant.	J. W. Hyatt	417,036	Dec. 10	1309	357	49	1637
Feeder. Coagulant.	C. H. Kendrick	417,046	Dec. 10	1336	363	49	1641
Feeder-platform.	A. J. Wirtz, H. J. C. Richter, and C. H. Wirtz.	413,993	Oct. 29	3268	854	49	875
Feeding and watering poultry. Device for	D. Y. Hallock	414,405	Nov. 5	373	84	49	601
Feeding reagents. Apparatus for	J. W. Hyatt	417,035	Dec. 10	1307	357	49	1637
Felly-joint holder	M. Keech and B. M. Miller	413,672	Oct. 29	2804	730	49	576
Fence	L. Barnes	416,353	Dec. 3	303	80	49	1429
Fence	D. N. Bladwell	412,829	Oct. 15	1543	403	49	315
Fence	J. B. Bradford	415,238	Nov. 19	1615	416	49	1065
Fence	J. B. Cleveland. (Reissue.)	11,045	Dec. 3	846	225	49	1234
Fence	W. Cline	415,616	Nov. 19	2245	582	49	1195
Fence	C. F. Darnell	415,388	Nov. 19	1853	452	49	1107
Fence	C. F. Darnell	415,383	Nov. 19	1844	480	49	1107
Fence	H. A. Holibangh	412,387	Oct. 8	888	231	49	190
Fence	P. Lightner	413,258	Oct. 29	2182	569	49	445
Fence	T. J. Linton	416,460	Dec. 3	469	127	49	1464
Fence	W. T. Manry	416,833	Dec. 10	1160	317	49	1607
Fence	P. Mast	411,995	Oct. 1	312	81	49	64
Fence	F. E. Parsons and F. F. Prickett	415,420	Nov. 19	1905	495	49	1120
Fence	C. H. Sheffield	415,741	Nov. 26	2423	633	49	1230
Fence	C. H. Whiman	416,928	Nov. 26	2849	746	49	1319
Fence and insect-destroyer. Combined.	C. B. Halstead.	413,507	Oct. 29	2556	683	49	517
Fence. Barbed	O. Huffman	418,617	Dec. 31	3733	976	49	2135
Fence-building mach. m.	W. C. Peyton and J. Burnam	414,444	Nov. 5	408	103	49	822
Fence-guard	S. B. Grubbs	414,703	Nov. 12	810	210	49	906
Fence. Hedge	B. W. Barger	418,308	Dec. 31	3283	851	49	2029
Fence. Hedge	R. T. Smith	418,593	Dec. 31	3704	968	49	2129
Fence. Iron	L. Freas	412,173	Oct. 1	572	149	49	115
Fence-loom	O. S. Rocker	416,392	Dec. 3	369	95	49	1440
Fence-machine	E. W. Channell	414,140	Oct. 29	3488	906	49	717
Fence-machine	E. A. Leinard and G. W. Sheets	412,634	Oct. 8	1229	329	49	254
Fence-machine	W. H. McGrew	414,817	Nov. 12	966	250	49	938
Fence-machine	J. A. Minnick	415,943	Nov. 26	2506	669	49	1258
Fence-machine	J. W. Paterbaugh	417,979	Dec. 17	1075	433	49	1718
Fence-machine	H. M. and C. O. Tschopp	413,420	Oct. 29	2474	638	49	493
Fence. Machine for making slat and wire.	W. Carter	413,223	Oct. 29	2135	555	49	436
Fence machine. Picket	P. W. Kelly	413,673	Oct. 29	2805	730	49	576
Fence machine. Picket and wire	J. A. Kramer	418,194	Dec. 31	3087	810	49	2004
Fence machine. Slat and wire	J. Staples	415,177	Nov. 12	1537	385	49	1041
Fence machine. Wire	P. W. Cook	415,240	Nov. 19	1618	417	49	1065
Fence machine. Wire	A. Jensen	417,249	Dec. 17	1625	440	49	1709
Fence machine. Wire	J. W. Page and C. M. Lamb	414,844	Nov. 12	1010	302	49	947
Fence machine. Wire-and-picket	J. H. Goehenour	418,561	Dec. 31	3653	955	49	2119
Fence-making machine	O. M. Husted	414,319	Nov. 5	207	52	49	779
Fence-making machine	A. A. Parker and J. F. Landers. (Reissue.)	11,044	Nov. 26	3064	795	49	1360
Fence. Portable worm	B. F. Swift	417,805	Dec. 10	1565	425	49	1687
Fence-post	R. S. Case	413,025	Oct. 15	1831	479	49	370
Fence-post	G. A. Carter	417,385	Dec. 17	1838	493	49	1747
Fence-post	J. A. Daugherty	415,266	Nov. 19	1656	426	49	1072
Fence-post	E. Gilbert	412,954	Oct. 15	1731	450	49	348
Fence-post	W. H. Lawrence	418,524	Dec. 31	3595	928	49	2108
Fence-post	J. Lounsherry	412,766	Oct. 15	1461	382	49	300
Fence-post	J. W. and J. A. Osborn	417,677	Dec. 17	1857	497	49	1751
Fence-post	J. S. Payne	413,688	Oct. 15	1918	501	49	387
Fence-post	S. B. Salsich	417,397	Dec. 17	1857	497	49	1751

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'sk	Vol.	Page.
Fence-post	S. B. Waldorf	416,384	Dec. 3	566	152	49	1481
Fence-wearing machine	R. E. Carter	419,669	Oct. 1	418	108	49	86
Fence, Wire	P. J. and P. W. Sommer	414,135	Oct. 39	3465	906	49	713
Fence-wire stretcher	J. Hunter	415,640	Nov. 19	3271	592	49	1193
Fence-wire stretcher	Z. V. Long	417,431	Dec. 17	1962	509	49	1761
Fences. Swaging bench for iron	C. Hanika	414,770	Nov. 12	899	333	49	925
Fences. Tension device for wire	D. H. Scott	416,855	Dec. 10	1190	334	49	1613
Fencing	M. D. Cummings	416,718	Dec. 10	854	331	49	1546
Fencing. Machine for making alat-and-wire	H. T. Renton	417,504	Dec. 17	2921	539	49	1784
Fender:							
See Carriage-wheel	Plow-fender.						
fender.	Vehicle-fender.						
Fire-fender.	Vehicle-wheel fender.						
Ferrule	J. Macphail	419,033	Oct. 1	369	95	49	74
Ferrule-skimming machine	C. S. Smith	419,344	Oct. 8	828	217	49	168
Fertilizer-distributor	F. H. Allen	419,061	Oct. 1	409	105	49	82
Fertilizer-distributor	S. W. Sned	416,382	Dec. 3	350	92	49	1478
Fertilizer-distributing machine	W. Schmidt and P. B. Spiegel	412,798	Oct. 15	1501	328	49	457
Fertilizer-distrib. Agitator for	T. R. Crane	418,501	Dec. 31	3551	922	49	2099
Fertilizers. Apparatus for making	W. W. Cowley	416,155	Dec. 3	9	23	49	1370
Fertilizing machine	L. S. Brandenburg and H. H. Woga-	413,124	Oct. 15	1979	516	49	399
man							
Fifth-wheel	A. J. Watson	418,097	Dec. 24	2923	767	49	1965
Fifth-wheel for buggies	D. G. Wyeib	416,313	Dec. 3	242	63	49	1417
Fifth-wheel. Vehicle	A. B. Heaton and R. D. Criswell	417,557	Dec. 17	2121	565	49	1801
Fifth-wheel. Vehicle	E. F. Morse	416,638	Dec. 3	739	198	49	1515
Fifth-wheel. Vehicle	H. Nolly, J. F.	413,969	Oct. 22	2241	529	49	457
File and try-square. Combined	J. W. Boughton and J. M. Snidow	419,493	Dec. 31	3542	926	49	2096
File. Bill	H. Johnson	417,043	Dec. 10	1321	361	49	1640
File-box	M. R. Jewell	412,625	Oct. 8	1250	326	49	251
File. Cabinet	J. D. Hubbard	413,792	Nov. 26	2484	648	49	1242
File. Cabinet	E. Phillips	415,057	Nov. 12	1330	347	49	1509
File-case fastener	T. J. Amberg	411,849	Oct. 1	115	30	49	25
File. Combined photographic and card	416,621	Dec. 3	705	201	49	1511	
File-cutting machine	A. Goldenberg	413,319	Oct. 22	2287	524	49	466
File for locomotive-engines. Train-order	H. C. Cummingham	415,189	Nov. 19	1354	401	49	1032
File-bolder	O. Morton	416,208	Dec. 3	219	57	49	1411
File. Letter	J. F. Lash	416,636	Nov. 26	2809	750	49	1323
File. Letter	W. Stier	412,562	Oct. 8	1139	297	49	232
File. Letter or document	A. Cox	417,771	Dec. 24	2434	611	49	1871
File. Letter or document	E. Phillips	415,056	Nov. 12	1339	348	49	1508
File or document bolder	E. W. Woodruff	412,154	Oct. 1	335	141	49	108
File or document bolder	E. W. Woodruff	415,429	Nov. 19	1918	499	49	1132
File or rasp	J. Ridge	416,805	Dec. 10	974	264	49	1569
File. Paper	P. R. Blot	417,334	Dec. 17	2991	555	49	1795
File. Paper	M. R. Jewell	412,624	Oct. 8	1248	326	49	251
Files. Cleaning	J. E. Mathewson	412,771	Oct. 15	1408	382	49	301
Filling and weighing machine. Automatic	N. L. Tuck	417,609	Dec. 17	2188	583	49	1815
Filter	J. Aspiden	417,766	Dec. 24	2436	610	49	1869
Filter	C. J. Bähring	413,021	Oct. 15	1227	478	49	370
Filter	B. H. Coffey	417,384	Dec. 17	1839	493	49	1748
Filter	B. H. Coffey	417,405	Dec. 17	1863	499	49	1752
Filter	O. H. and I. H. Jewell	418,186	Dec. 31	3077	807	49	2092
Filter	R. Morris	417,070	Dec. 10	1360	379	49	1648
Filter	W. Oliphant	417,833	Dec. 24	2236	665	49	1889
Filter	G. A. F. Streuber	417,399	Dec. 17	1859	498	49	1751
Filter and water-purifier	F. Stiles	415,927	Nov. 26	2703	706	49	1298
Filter apparatus	O. Rieck	416,076	Nov. 26	2851	754	49	1355
Filter-bed. Granular	J. W. Hyatt	417,037	Dec. 10	1310	325	49	1638
Filter-cleaning apparatus	J. C. Strouse	417,371	Dec. 17	1819	488	49	1744
Filter. Metallurgical	J. S. MacArthur	418,138	Dec. 24	2929	766	49	1977
Filter-pan	J. B. Legett	416,634	Dec. 3	725	196	49	1514
Filter. Self-cleaning	W. Mather	415,848	Nov. 19	2281	585	49	1195
Filter-strainer	J. W. Hyatt	417,038	Dec. 10	1313	328	49	1638
Filter. Water	O. H. and I. H. Jewell	413,671	Oct. 22	2602	729	49	576
Filters. Apparatus for cleansing the bodies of	O. André	418,148	Dec. 31	3022	794	49	1991
Filtering	J. McNab	412,780	Oct. 15	1478	376	49	303
Filtering and clarifying water	A. C. Newcomb	412,408	Oct. 8	916	240	49	156
Filtering apparatus	H. H. Shufeldt and J. A. Lynch	416,806	Dec. 10	1064	287	49	1568
Filtration. Apparatus for upward	J. W. Hyatt	417,039	Dec. 10	1315	330	49	1638
Finger-nail cutter	G. H. Coates	413,225	Oct. 22	2136	555	49	436
Finger-nail knife	S. E. Jones	415,462	Nov. 19	1970	493	49	1134
Finger-rings. Machine for enlarging	C. A. Svenson	418,465	Oct. 22	2482	648	49	504
Finger-rings. Means for securing	A. F. Margileth	417,569	Dec. 17	2134	506	49	1804
Fire-alarm. Auxiliary	J. P. McMahon	416,483	Dec. 3	485	132	49	1467
Fire-alarm box	G. L. Foote	415,629	Nov. 19	2227	589	49	1100
Fire-alarm box	G. F. Milliken	412,971	Oct. 15	1744	456	49	353
Fire-alarm system	J. Spelcher	416,513	Dec. 3	536	145	49	1476
Fire-alarm system. Auxiliary	T. Cooper	416,444	Dec. 3	437	119	49	1457

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly Volume.		Official Gazette.	
				Spec.	Dr. &c.	Vol.	Page.
Fire and water proof compound	W. Matt.	412,035	Oct. 1	371	49	75	
Fire-arm	C. Foehl	417,672	Dec. 17	2277	603	1831	
Fire-arm	K. R. Milovanovitch-Koka	413,079	Oct. 15	1901	497	1385	
Fire-arm. Breech-loading	C. J. Ebbehts.	415,451	Nov. 19	1954	509	1120	
Fire-arm. Breech-loading	W. B. Hall	414,213	Nov. 5	54	12	748	
Fire-arm. Breech-loading	B. S. Herrmann	415,509	Nov. 19	2059	534	1151	
Fire-arm. Breech-loading	J. Macon	414,651	Nov. 5	726	177	188	
Fire-arm. Breech-loading magazine	C. E. Snieder	417,394	Dec. 17	2166	377	1814	
Fire-arm. Breech-loading magazine	C. E. Snieder	417,395	Dec. 17	2171	577	1815	
Fire-arm. Magazine	J. M. Marlin	413,196	Oct. 22	2093	545	1427	
Fire-arm. Magazine	K. R. Milovanovitch-Koka	413,078	Oct. 15	1897	497	1384	
Fire-arm. Magazine	S. H. Roper	413,734	Oct. 29	2985	732	1901	
Fire-arm. Revolving	J. M. Marlin	413,197	Oct. 22	2094	545	1428	
Fire-arm. Cartridge-magazine for	E. G. N. Salenius	416,377	Dec. 3	342	91	1436	
Fire-back. Adjustable	L. Wood	418,482	Dec. 31	3521	921	2095	
Fire-engine	W. Morrison	415,653	Nov. 19	1934	545	1120	
Fire-escape	H. Allgrove	414,476	Nov. 5	435	115	49	
Fire-escape	E. H. Amet	413,881	Oct. 29	3104	809	1638	
Fire-escape	J. C. Betten	416,350	Dec. 3	396	162	49	
Fire-escape	D. J. Brown	417,902	Dec. 24	2676	692	1868	
Fire-escape	E. W. Fenner and E. J. Lee	414,391	Nov. 5	369	79	80	
Fire-escape	L. Hill	413,867	Nov. 26	2369	679	1805	
Fire-escape	G. Klipp	412,630	Oct. 8	1255	338	49	
Fire-escape	C. M. Mitchell and G. E. Small	411,869	Oct. 1	136	35	49	
Fire-escape	L. E. Morrison	411,429	Nov. 5	378	94	49	
Fire-escape	O. W. Hirsch	412,737	Oct. 22	2129	49	81	
Fire-escape for barns	J. W. Peters	417,732	Oct. 15	1438	375	49	
Fire-escape mechanism for barns	J. W. Peters	411,534	Oct. 1	89	34	49	
Fire-escapes. Expanding apparatus for	G. Edwards	415,667	Nov. 19	2903	601	1901	
Fire-extinguisher	V. A. Harder	416,838	Dec. 10	1028	276	1276	
Fire-extinguisher. Automatic	J. B. Freeman	415,166	Nov. 12	1524	393	1693	
Fire-extinguisher. Automatic	E. P. Gleason	416,779	Dec. 10	937	353	1693	
Fire-extinguishers. Automatic	W. Harkness	417,596	Dec. 24	2676	692	1868	
Fire-extinguishers. Automatic sprinkler nozzle or valve for	W. Harkness	417,025	Dec. 10	1294	354	1633	
Fire-extinguishing system. Automatic	C. H. Simmons and J. R. Hepburn	416,867	Dec. 10	1066	287	1276	
Fire-extinguisher and andiron	G. W. Pickett	413,548	Oct. 22	2095	675	1428	
Fire-kindler	S. S. Bobst	415,808	Nov. 26	2511	49	1354	
Fire-kindler	A. D. L. Gathemann	418,316	Dec. 31	3272	855	2095	
Fire-kindler	P. L. Ratsall	415,734	Nov. 26	2413	631	1924	
Fire-kindler	G. E. Sigurdson	417,588	Dec. 10	937	353	1693	
Fire-kindler	C. W. Walters	415,231	Nov. 19	1609	414	1603	
Fire-place	L. M. Runney	413,561	Oct. 22	2029	682	1428	
Fire-place	C. A. Wellington	413,003	Oct. 15	1792	469	1384	
Fire-place and grate	W. L. Nason	418,215	Dec. 31	3517	921	2095	
Fire-place and heater	J. S. Cloud and S. D. Dearman	412,468	Oct. 8	99	261	49	
Fire-proof buildings. Construction of	G. H. Burt	411,781	Oct. 1	13	5	49	
Fire-proof coverings for walls and ceilings. Producing	C. F. W. Doehring	413,437	Oct. 22	2454	49	81	
Fire-proof structure. Metallic	J. W. Kenaett	417,250	Dec. 17	1036	441	1701	
Fire-signal. Electric	C. B. Head	414,155	Oct. 29	3516	915	1721	
Fire. Water system for protecting buildings against	M. Maguin	415,212	Nov. 19	1385	409	1058	
Fire-works. Machine for charging	C. Wadsworth	414,094	Oct. 22	2129	49	81	
Fireman's or stoker's shield	N. Weber	413,424	Oct. 22	2435	633	149	
Fish. Device for stringing and carrying	S. S. Harman	413,681	Oct. 29	271	722	49	
Fish-globe	G. A. Gunther	415,506	Nov. 19	3055	333	1151	
Fish-globe	E. S. Sigurdson	415,797	Nov. 26	2488	633	1924	
Fishing-reel	C. M. Clinton	413,774	Oct. 29	2946	708	1603	
Fishing-reel	J. M. Kepler	412,689	Oct. 8	1254	327	49	
Fishing-reel	J. Vom Hofe	412,685	Oct. 8	1255	347	49	
Fishing-reel and reel	G. P. Follett	415,381	Nov. 19	1740	437	1091	
Fishing-rod holder	S. Dupuis	417,997	Dec. 24	2778	732	1868	
Fishing-tackle box	J. C. Boreberdt	417,979	Dec. 24	2744	722	1868	
Flag-staff	J. Poiré	412,117	Oct. 1	475	124	49	
Flag-staff holder	E. J. D. Lipp	412,131	Oct. 15	989	49	70	
Flag-staff holder	T. C. Clark	416,961	Dec. 10	1116	394	149	
Flag-staff holder	E. Ried	415,230	Nov. 19	1597	411	1603	
Flange-wrench	J. F. Guthrie, Jr	411,897	Oct. 1	44	43	49	
Flange-machine	H. B. Brownell	411,750	Oct. 1	44	43	49	
Flash-light apparatus. Magnesium	J. J. Higgins	417,492	Dec. 17	1888	506	1751	
Flash-light ignitor	H. G. Ramperger	412,790	Oct. 15	1489	389	1301	
Flask	See Foundry-flask.						
Flask for making seamless snab-weights	A. S. Hodges	414,538	Nov. 12	997	258	49	
Flasks. Protective covering for metallic	H. J. Krebs	412,190	Oct. 1	593	154	49	
Flasks. Safety apparatus for carbonic-acid-gas	F. Felscher	414,702	Oct. 8	1357	333	49	
Flat-bottomed boat	C. S. Fox	416,415	Dec. 10	925	49	70	
Flood-gate	J. H. Caraway	417,984	Dec. 24	2749	724	1868	
Flour-arch-center banger	F. Trübert	417,957	Dec. 24	2714	714	1868	
Floor. Fire-proof	O. W. Norcross	417,500	Dec. 17	2016	338	1751	
Floor. Fire-proof	T. Furrer	416,137	Dec. 10	1155	367	149	
Floors. Construction of fire-proof	M. Fawcett	415,339	Nov. 19	1785	464	109	
Flouring	T. Cantwell	412,946	Oct. 15	1712	447	34	
Flour-bin. Portable screening	C. Tangenberg	413,743	Oct. 29	2906	755	1693	
Flour-chest	H. G. Brownell	416,215	Dec. 10	925	49	70	
Flour-dressing machine	W. White	418,361	Dec. 31	3347	873	2095	

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Flour-packer	C. F. Walters	418,480	Dec. 31	3517	920	49	2091
Flower-stand	J. A. and C. A. Koehler	411,996	Oct. 1	1728	46	49	36
Flower-stand	H. Westphal	413,745	Oct. 29	2903	755	49	595
Flower-stand. Folding wire	A. E. Whitehouse	412,146	Oct. 1	527	139	49	107
Flowers, &c. Apparatus for branching artificial	I. Birgé	418,480	Dec. 31	3536	925	49	2095
Flowers. Preserving natural	T. Reinherz	417,284	Dec. 17	1684	49	1720	
Fine cleaner. Boiler	E. B. Torrey	414,257	Nov. 19	969	255	49	1079
Fine-scraper	V. Radspinner	415,225	Nov. 19	1692	439	49	1729
Fine stopper or cover	J. Koehneck	414,328	Nov. 5	219	55	49	782
Fluid can and pump	P. S. Belcher	413,162	Oct. 23	2050	532	49	419
Fluid-trap	P. H. May, Jr.	417,171	Dec. 10	1516	412	49	1678
Fluids. Apparatus for the continuous extraction of	J. W. Hyatt	416,108	Nov. 28	2993	769	49	1347
Fluids. Indicating the velocity of running	H. Flad	417,318	Dec. 17	1730	465	49	1729
Flushing apparatus	R. Walsh	417,125	Dec. 10	1450	393	49	1065
Flushing apparatus. Siphon and trap for	L. M. Hawley	415,911	Nov. 26	2666	699	49	1280
Flushing. Automatic	H. C. Weeden	416,135	Nov. 26	3045	791	49	1357
Flushing by electricity. Automatically	H. C. Weeden	416,138	Nov. 26	3048	792	49	1357
Flushing device	H. C. Weeden	416,131	Nov. 26	3041	790	49	1356
Flushing device. Automatic	A. P. Browne	416,091	Nov. 26	2997	772	49	1340
Flushing device. Automatic	H. C. Weeden	415,260	Nov. 19	1648	425	49	1071
Flushing device. Automatic	H. C. Weeden	416,136	Nov. 26	3047	792	49	1357
Flushing device. Automatic	H. C. Weeden	416,137	Nov. 26	3047	792	49	1357
Flushing device. Automatic	H. C. Weeden	416,138	Nov. 26	3048	793	49	1358
Flushing device. Automatic	H. C. Weeden	416,141	Nov. 26	3051	793	49	1358
Flushing device for urinals. Automatic	H. C. Weeden	416,133	Nov. 26	3043	791	49	1356
Flushing-tank	I. Shone	417,100	Dec. 10	1406	353	49	1657
Flushing-tank device. Automatic fore-and-after	H. C. Weeden	416,132	Nov. 26	3042	791	49	1356
Flushing urinals, &c. Automatically	H. C. Weeden	416,142	Nov. 26	3052	793	49	1358
Fly-paper. Package of	O. and W. Thum	416,134	Nov. 26	3044	791	49	1356
Fly-paper. Sticky	O. and W. Thum	416,010	Nov. 26	2939	743	49	1317
Fly-paper. Sticky	O. and W. Thum	414,606	Nov. 5	657	170	49	870
Fly-paper. Sticky	O. and W. Thum	417,400	Dec. 17	1859	498	49	1732
Flying-machine	N. H. Borgfeldt	411,779	Oct. 1	8	2, 3, 4	49	4
Folding box	C. Schwartz	414,450	Nov. 5	418	106	49	1885
Folding chair	J. P. Gage	417,819	Dec. 24	2308	690	49	824
Folding chair	K. T. Harburt	412,338	Oct. 8	890	212	49	106
Folding chair	K. L. Milliken	412,400	Oct. 8	906	237	49	194
Folding chair	A. Bataille	417,206	Dec. 24	2621	691	49	1907
Folding table	L. L. Ketchum	413,284	Oct. 29	2296	596	49	477
Folding table	H. S. Lee	415,941	Nov. 26	2564	699	49	1258
Folding table	H. A. Luft	414,065	Oct. 29	3385	800	49	696
Folding table	N. Wise and A. C. Petersen	412,216	Oct. 8	763	203	49	160
Folding table	P. F. Fallas	413,729	Oct. 29	2880	729	49	591
Food. Cattle	H. E. Dennett	417,710	Dec. 24	2338	699	49	1892
Food compound	J. Carnrick	412,839	Oct. 15	1557	397	49	317
Food for infants and invalids. Prepared	J. E. Adams	415,431	Nov. 19	1922	500	49	1123
Foot-power	J. Kelly	412,711	Oct. 15	1375	358	49	276
Foot-power	C. Golden	413,361	Nov. 19	1818	478	49	1192
Footstool and cuspidor. Combined	E. E. Ertzman	412,918	Oct. 15	1676	437	49	339
Force-can	C. E. Gould	412,562	Dec. 31	3654	955	49	2119
Forgings. Die for making rolled	C. E. Gould	412,383	Oct. 8	883	230	49	179
Forgings. Machine for making rolled	C. E. Gould	412,383	Oct. 8	883	231	49	179
Fork	C. Sprake	416,651	Dec. 3	751	203	49	1519
See Cake-fork. Pitchfork.	A. Copley	413,359	Oct. 22	2553	699	49	475
Fork-guard	T. W. McPherson	414,736	Dec. 10	876	226	49	1551
Fork, pan, and stove-lid lifter. Combined	T. K. Timby	413,581	Oct. 22	2636	689	49	537
Fortification. Revolving-tower	J. Nenklroh	416,180	Dec. 3	47	14	49	1378
Foundations, &c. Solidification of loose ground for	G. W. Van Tine	412,905	Oct. 15	1654	432	49	335
Founding apparatus. Metal	H. Tabor	413,153	Oct. 15	2023	527	49	408
Founding machine. Metal	J. M. Cornell	418,170	Dec. 31	3057	802	49	1998
Foundry-flask							
Fountain							
See Soda-water fountain.							
Frame							
See Awning-frame. Photographic-printing frame.							
Car-body frame. Picture frame.							
Decorative frame. Ratchet-drill frame.							
Display-frame. Saw-frame.							
Eyeglass-frame. Spinning-frame.							
Harrow-frame. Umbrella-frame.							
Loom spool-holding frame. Vignetting-frame.							
Necktie-frame.							
Freezer or refrigerator	M. Monclon	416,417	Dec. 3	396	105	49	1448
Friction-generator	S. H. Bartlett	416,602	Dec. 3	769	210	49	1522
Frigidic apparatus	R. P. Pictet	415,881	Nov. 26	2619	685	49	1270
Frog. Spring	A. W. Pelge	412,891	Oct. 15	1635	427	49	331
Frog. Spring	J. T. Richardson	417,597	Dec. 17	2027	543	49	1785
Frogless switch	C. W. Jones	411,991	Oct. 1	308	79, 80	49	63
Fruit assorting and cleaning device	M. Tompkins	417,756	Dec. 24	2411	636	49	1866
Fruit cutting and pitting machine	L. Sanguinetti and W. Stevenson	417,885	Dec. 24	2690	684	49	1902
Fruit-drier	J. H. Bard	413,125	Oct. 15	1980	516	49	399
Fruit-drier	G. and F. Frick	414,206	Nov. 5	44	10	49	746
Fruit-drier	F. H. Gilbert	418,407	Dec. 31	3409	891	49	2069

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	De'g.	Vol.	Page.
Fruit-drier.....	D. L. Smith.....	412,131	Oct. 1	502	133	49	102
Fruit-drier.....	E. White.....	413,589	Oct. 22	2671	694	49	539
Fruit-drier. Portable.....	A. H. Strickler, J. Phillips, and A. Stouffer.....	414,458	Nov. 5	489	108	49	826
Fruit-evaporator.....	S. E. Sprout.....	418,079	Dec. 24	2900	761	49	1960
Fruit-gatherer.....	J. M. Davenport and B. F. Mitchell.....	413,710	Oct. 29	2556	745	49	586
Fruit-jar.....	D. Barker.....	412,266	Dec. 31	3101	835	49	2025
Fruit or nut gatherer.....	I. H. Williams.....	412,688	Oct. 8	1339	348	49	270
Fruit-packing case.....	J. L. Stevens.....	415,074	Nov. 13	1353	353	49	1013
Fruit-pitting machine.....	G. W. Campbell.....	414,971	Nov. 12	1311	315	49	984
Fruit-pitting machine.....	E. L. Nichols.....	413,814	Oct. 29	3023	787	49	618
Fruit-squeezer.....	D. H. Rice.....	413,244	Oct. 22	2164	563	49	441
Fuel. Artificial.....	D. C. Fischel.....	413,110	Oct. 15	1949	.....	49	393
Fuel. Artificial.....	J. Morris.....	417,262	Dec. 17	1811	.....	49	1742
Fuel. Composition.....	A. Mayer.....	414,116	Oct. 29	3465	846	49	711
Fuel. Composition for.....	G. A. Zwick.....	411,848	Oct. 1	114	.....	49	25
Furling-mills, &c. Brass or composition faced rolls for.....	J. Dunbar and C. E. Gibbs.....	418,367	Dec. 31	3354	875	49	2057
Furnace. Apparatus for refining.....	F. L. Bartlett.....	415,186	Nov. 19	1551	399	49	1051
Funnel for preparing coffee.....	C. Hoeder.....	411,920	Oct. 1	308	54	49	43
Funnel. Measuring.....	Q. Magliola.....	413,326	Oct. 22	2296	597	49	407
Funnel. Measuring.....	M. B. Schneider.....	415,312	Nov. 19	1742	453	49	1059
Fur dressers. Hair-clipping bench for.....	E. Schroeder.....	416,884	Dec. 10	1855	.....	49	1587
Fur, feathers, hair, &c. From their skins to artificial hackles. Transferring.....	A. F. Bilderbeck-Gomes.....	416,151	Dec. 3	4	.....	49	1369
Furnace: See Boller-furnace.....	Glass-furnace.....						
Bone-furnace.....	Heating-furnace.....						
Coking-furnace.....	Hot-air furnace.....						
Corrugated furnace.....	Hot-air-distributing furnace.....						
C n p o l s and blast furnace.....	Pit-furnace.....						
Garbage-furnace.....	Portable furnace.....						
Garbage-cremating furnace.....	Puddling-furnace.....						
Gas-furnace.....	Regenerative furnace.....						
Gas and smoke consuming furnace.....	S m o k e-consuming furnace.....						
Gas-retort furnace.....	Solder-melting-furnace.....						
Gas-retort furnace.....	Tube-welding furnace.....						
Furnace.....	J. H. Behee.....	417,465	Dec. 17	1948	519 } 620 }	49	1770
Furnace.....	V. W. Blanchard.....	413,896	Oct. 29	3122	814	49	639
Furnace.....	V. W. Blanchard.....	413,916	Oct. 29	3153	894	49	647
Furnace.....	V. W. Blanchard.....	413,922	Oct. 29	3161	826	49	649
Furnace.....	V. W. Blanchard.....	413,927	Oct. 29	3169	829	49	651
Furnace.....	V. W. Blanchard.....	414,137	Oct. 29	3481	904 } 905 }	49	716
Furnace.....	G. A. Clark.....	415,666	Nov. 19	2304	600	49	1199
Furnace.....	A. Don and J. Sands.....	411,984	Oct. 1	297	77	49	61
Furnace.....	G. F. Gallagher and T. B. Moore.....	414,037	Oct. 29	3341	871	49	687
Furnace.....	G. F. Gallagher and T. B. Moore.....	414,150	Oct. 29	3509	912	49	722
Furnace.....	G. F. Gallagher and T. B. Moore.....	414,151	Oct. 29	3510	913	49	722
Furnace.....	W. Johnston.....	418,570	Dec. 31	3664	958	49	2121
Furnace.....	R. Le Las and A. Robin.....	411,265	Oct. 1	132	34	49	28
Furnace.....	J. Mitchell.....	415,670	Nov. 19	2330	608	49	1204
Furnace.....	F. G. Sherwood.....	412,207	Oct. 1	613	159	49	123
Furnace.....	M. H. Steele.....	414,296	Nov. 12	984	254	49	941
Furnace.....	G. H. Taylor.....	414,604	Nov. 5	653	169 } 170 }	49	870
Furnace-door.....	V. W. Blanchard.....	412,913	Oct. 29	3147	821	49	646
Furnace-door.....	J. Heatley.....	412,854	Oct. 15	1626	425	49	329
Furnace-door.....	E. A. Kern.....	415,512	Nov. 19	2063	535	49	1152
Furnace-door shade.....	C. H. Shuts.....	413,570	Oct. 22	2643	685	49	534
Furnace-door. Steam-boiler.....	J. Schue.....	418,074	Dec. 24	2870	759	49	1558
Furnace for calcining bone-black.....	J. McNab.....	412,751	Oct. 15	1479	386	49	303
Furnace for roasting or otherwise treating granular or pulverulent materials.....	E. Langen.....	414,552	Nov. 5	565	145 } 146 }	49	833
Furnace-grate.....	V. W. Blanchard.....	413,898	Oct. 29	3125	815	49	640
Furnace-grate.....	E. Boileau.....	418,491	Dec. 31	3538	926 } 927 }	49	2096
Furnace-top. Blast.....	F. W. Gordon and V. O. Strobel.....	412,175	Oct. 1	573	149	49	115
Furnace-wall.....	V. W. Blanchard.....	413,905	Oct. 29	3136	818	49	643
Furnaces. Apparatus for charging ingots, &c., into.....	J. W. Anderson.....	414,478	Nov. 5	459	116	49	833
Furnaces. Apparatus for heating in.....	E. B. Cornell.....	418,451	Dec. 31	3475	909	49	2083
Furnaces. Automatic apparatus for supplying air to.....	V. W. Blanchard.....	413,921	Oct. 29	3159	826	49	649
Furnaces. Burning coal in.....	E. Fales.....	415,026	Nov. 19	2252	588	49	1189
Furnaces. Device for supplying superheated steam to.....	M. Alley.....	418,104	Dec. 24	2943	771	49	1968
Furnaces. Fuel-feeder for.....	V. W. Blanchard.....	413,902	Oct. 29	3132	817	49	641
Furnaces. Gas-cooler for.....	V. W. Blanchard.....	413,903	Oct. 29	3129	816	49	641
Furnaces. Heating in.....	E. B. Cornell.....	418,275	Dec. 31	3304	838 } 839 }	49	2028
Furnaces. Hopper mechanism for blast.....	J. G. Carlinet.....	414,019	Oct. 29	3317	865	49	662
Furnaces. Magazine for steam-boiler.....	A. P. Brumell.....	418,159	Dec. 31	3037	797	49	1094
Furnaces. Mixing-chamber for.....	V. W. Blanchard.....	413,917	Oct. 29	3154	824	49	647
Furnaces. Regulating device for the distributing-pipes of hot-air.....	T. G. Wanless.....	414,349	Nov. 5	249	63	49	789
Furniture. Fastening for slatted.....	S. W. Peregrine.....	414,573	Nov. 5	601	155	49	859
Furniture-joint.....	F. R. Beal.....	415,601	Nov. 19	2308	576	49	1181

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.
				Spec.	Dr'g	Page.
Fuse and taper lighter	J. R. Collins and J. Wad-El-Ward.	418,110	Dec. 24	3950	776	49 1909
Fuse for blasting. Percussion.	F. L. and H. Thimmann	414,662	Nov. 5	746	192	49 887
Gage:						
See Adjustable gage.	Saw-gage.					
Boiler try-gage.	Sewing-machine gage.					
Lantern-gage.	Speed-gage.					
Pencil-sharpening gage.	Watch-crystal gage.					
Rain or snow gage.	Water-gage.					
Gage	P. H. Griffin	413,770	Oct. 29	2951	770	49 604
Gage-knife	G. M. Conover	417,850	Dec. 24	3567	676	49 1896
Gages. Instrument for testing and graduating vacuum.	C. B. Bosworth	412,830	Oct. 15	1543	403	49 316
Galvanic battery	P. B. Delany	417,814	Dec. 24	2500	659	49 1893
Galvanic battery	O. A. Enholm	415,963	Nov. 26	3759	731	49 1301
Galvanic battery	G. Otto	415,973	Nov. 26	3773	736	49 1304
Galvanic battery	E. A. Sperry	417,290	Dec. 17	1663	457	49 1721
Galvanic battery	J. E. Watson	415,693	Nov. 19	2197	573	49 1179
Galvanic dry element	C. H. Wolf	417,458	Dec. 17	1940	574	49 1178
Galvanometer	J. E. Lockwood	414,432	Nov. 5	369	91	49 89
Galvanometer	A. M. Ritchie	413,912	Oct. 29	3997	780	49 612
Galvanometer	W. Thomson	412,140	Oct. 1	515	136	49 104
Galvanometer	W. Thomson	416,654	Dec. 3	754	204	49 1520
Galvanometer	W. Thomson	416,655	Dec. 3	756	206	49 1520
Game	G. F. Newland	416,331	Dec. 3	113	32	49 1391
Game	W. O. Pierce	414,292	Nov. 5	110	25	49 760
Game apparatus	W. I. Smith	416,511	Dec. 3	533	144	49 1476
Game apparatus	R. W. Newton	415,418	Oct. 22	2470	641	49 590
Game apparatus	E. L. Sawlings	414,588	Nov. 12	1220	321	49 969
Game-board	W. H. Reiff	416,686	Dec. 3	800	318	49 1523
Game-board	O. Weaver	417,202	Dec. 17	1648	447	49 1718
Game-counter	L. E. Mesabe	417,528	Dec. 17	2091	552	49 1793
Game. Money-change	W. W. Clay	411,962	Oct. 1	257	66	49 52
Game. Parlor	J. McDardell	413,957	Oct. 29	3215	839	49 661
Game. Ring	T. Kochka	412,287	Oct. 8	753	196	49 155
Garbage-cremating furnace	A. L. Patrick	413,332	Oct. 29	3025	785	49 1402
Garbage-furnace	R. C. Heavey	411,963	Oct. 1	369	69, 70	49 54
Garden implement	E. E. Gaudin	417,554	Dec. 17	2117	564	49 1800
Garment	S. B. Magee	415,676	Nov. 19	2327	607	49 1204
Garment-clasp	A. W. Cash	414,857	Nov. 12	1034	297	49 950
Garment-hook	M. Schloss	417,590	Dec. 17	2162	575	49 1800
Garment. Skirt-protector	C. D. Stearns	416,062	Dec. 24	2904	702	49 1961
Garment-support	A. W. Cash	413,772	Oct. 29	3944	707	49 602
Garment-supporter	E. K. Arnold	414,858	Nov. 12	1034	297	49 950
Garment-supporter	J. M. March	415,973	Nov. 26	3771	725	49 1303
Garment-supporting clasp	F. A. Richardson	413,702	Oct. 29	3970	774	49 608
Garment-stay	E. K. Warren and J. H. Ames	416,337	Dec. 31	3709	969	49 2130
Garment. Suspensory	C. C. Taylor	416,970	Dec. 10	1494	336	49 1617
Gas and air. Apparatus for mixing	E. B. Denny	416,776	Dec. 10	928	252	49 1560
Gas and air mixer	H. Klahre	414,549	Nov. 5	161	144	49 853
Gas and compressed-air engine. Combined	E. Stevens	414,173	Oct. 29	3543	925	49 729
Gas and electric-light fixture. Combined	D. J. Braun	418,250	Dec. 31	3186	836	49 2026
Gas and smoke consuming furnace	C. C. Hartung and E. Walsh, Jr.	417,556	Dec. 17	2119	564	49 1801
Gas. Apparatus for manufacturing	J. E. Mendenhall	412,966	Oct. 15	1739	455	49 352
Gas. Apparatus for manufacturing illuminating and heating	J. Hanlon	418,016	Dec. 24	2900	739	49 1941
Gas. Apparatus for the manufacture of	M. C. Burt	418,550	Dec. 31	3632	949	49 2115
Gas. Apparatus for the manufacture of	J. D. Rose	416,825	Dec. 10	999	270	49 1574
Gas. Apparatus for the manufacture of	C. Geisinger	414,038	Oct. 29	3343	871	49 687
Gas. Apparatus for the manufacture of	J. Hanlon	418,018	Dec. 24	2904	741	49 1942
Gas. Apparatus for the manufacture of	J. Hanlon	418,615	Dec. 31	3731	974	49 2134
Gas. Apparatus for the manufacture of	D. H. Knapp	413,190	Oct. 22	2085	975	49 436
Gas. Apparatus for the manufacture of	P. W. Mackenzie	418,647	Dec. 31	3778	987	49 2143
Gas. Apparatus for the manufacture of	J. M. Rose	415,565	Nov. 19	2154	562	49 1171
Gas. Apparatus for the manufacture of	J. Schinneller	417,341	Dec. 17	1765	474	49 1735
Gas. Apparatus for the manufacture of	R. R. Turner	416,920	Dec. 3	552	150	49 1479
Gas. Apparatus for the manufacture of illuminating	J. Hanlon	418,017	Dec. 24	2902	739	49 1942
Gas. Apparatus for the manufacture of illuminating	P. W. Mackenzie	418,649	Dec. 31	3782	987	49 2144
Gas. Apparatus for the manufacture of wood.	J. D. Averell	411,850	Oct. 1	116	30	49 25
Gas apparatus. Oil	A. Henning	416,609	Dec. 3	685	189	49 1506
Gas-burner	L. A. Bunn	414,160	Nov. 5	3	1	49 739
Gas-burner. Automatic safety	J. Baker	412,694	Oct. 8	1342	354	49 872
Gas-burner. Control	N. M. Garland	417,719	Dec. 24	2351	619	49 1855
Gas-burner for incandescent illumination	L. J. W. Hirm	416,986	Dec. 10	1222	335	49 1621
Gas-burner for stoves and fire-places	T. McSweeney	416,624	Dec. 3	709	192	49 1511
Gas-burner. Incandescent	A. C. Humphreys	415,418	Nov. 19	1903	494	49 1119
Gas-burner. Open	J. L. Stewart	417,524	Dec. 17	2059	549	49 1791
Gas-burner safety attachment	G. E. Wright	417,765	Dec. 24	2425	630	49 1869
Gas-burner safety attachment	R. P. Williams	417,101	Dec. 10	1408	384	49 1657
Gas-burner. Self-lighting	E. S. Allen	416,970	Dec. 10	1213	332	49 1618
		416,707	Dec. 10	832	228	49 1543

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Gas-burners. Alarm attachment for.....	E. L. Harrison.....	414,883	Nov. 12	1079	277	49	959
Gas by electricity. Apparatus for the manufacture of.....	M. C. Burt.....	414,551	Dec. 31	3033	949	49	2115
Gas-check.....	T. Angell.....	415,804	Nov. 26	2513	656	49	1548
Gas-cock. Safety.....	J. P. Becker.....	413,666	Oct. 1	416	107	49	1774
Gas-engine.....	W. E. Crist.....	417,471	Dec. 17	1853	532	49	1772
Gas-engine.....	H. J. Hartig.....	415,197	Nov. 19	1563	402	49	1054
Gas-engine.....	L. H. Nash.....	418,417	Dec. 31	3424	895	49	2073
Gas-engine.....	C. Sints.....	416,649	Dec. 3	747	896	49	1518
Gas-engine.....	W. Von Oechelhauser.....	417,759	Dec. 24	3415	697	49	1667
Gas-engine ignitor.....	W. E. Crist.....	417,472	Dec. 17	1853	522	49	1774
Gas-engine ignitor.....	L. H. Nash.....	418,419	Dec. 31	3432	897	49	2074
Gas-engines. Automatic ignition in.....	E. Korting.....	417,934	Dec. 24	2654	700	49	1014
Gas-engines. Operating.....	J. C. Beckfeld.....	417,634	Dec. 17	2210	588	49	1819
Gas-engines. Operating.....	S. Griffin.....	413,683	Oct. 15	1022	424	49	329
Gas-engines. Operating.....	L. H. Nash.....	418,418	Dec. 31	3429	896	49	2073
Gas-enricher.....	E. W. Hamlin.....	411,809	Oct. 1	46	14	49	12
Gas-fixture.....	H. Schrader.....	415,570	Nov. 19	3164	565	49	1173
Gas for heating and illuminating purposes. Apparatus for the manufacture of.....	B. T. Babbitt.....	417,658	Dec. 17	2252	569	49	1828
Gas from coal. Apparatus for making illuminating.....	J. H. R. Dinsmore.....	413,236	Oct. 22	2129	556	49	436
Gas-furnace. Regenerative.....	C. M. Ryder.....	416,753	Dec. 10	899	342	49	1555
Gas-generating apparatus.....	R. Bocklen and W. S. Wright.....	416,047	Nov. 26	2883	753	49	1326
Gas-generating apparatus.....	W. S. Wright.....	414,470	Nov. 5	447	113	49	830
Gas-generator.....	A. O. Smith.....	412,078	Oct. 8	1324	348	49	207
Gas-generator.....	D. Stearns.....	413,767	Oct. 29	2935	765	49	601
Gas-generator burner.....	D. Stearns.....	413,766	Oct. 29	2933	765	49	601
Gas generator. Carbonic-acid.....	J. A. Feld and J. Stehrecht.....	414,691	Nov. 12	793	206	49	904
Gas-governor.....	F. Ellis.....	416,216	Dec. 3	95	27	49	1387
Gas-governor.....	G. H. Gregory.....	414,535	Nov. 5	529	136	49	447
Gas governor and pressure regulator.....	W. J. Little.....	416,732	Dec. 10	890	321	49	1547
Gas-incandescent.....	H. J. Bell.....	413,484	Oct. 22	3521	653	49	510
Gas-light safety-catch.....	J. D. Bowman.....	416,895	Dec. 10	1109	302	49	1506
Gas-lighter. Electric.....	N. Newman.....	417,975	Dec. 10	1368	374	49	1649
Gas-lighter. Electric.....	N. Newman.....	417,198	Dec. 10	1532	452	49	1085
Gas-lighting. Automatic circuit making and breaking mechanism for.....	W. W. Eastabrook.....	414,763	Nov. 12	890	331	49	923
Gas-lighting system.....	A. Langen.....	416,635	Dec. 3	796	197	49	1515
Gas-lighting torch, taper-case, and match-box. Combined.....	T. W. Houchin and C. B. Riker.....	417,030	Dec. 10	1301	355	49	1035
Gas-main. Pressure-equalizer for.....	P. McGee.....	414,070	Oct. 29	3392	882	49	698
Gas. Making.....	P. W. Mackenzie.....	418,646	Dec. 31	3777	966	49	2143
Gas. Manufacturing.....	J. H. R. Dinsmore.....	413,177	Oct. 22	3068	539	49	423
Gas. Manufacturing.....	J. M. Rose.....	415,564	Nov. 19	2151	562	49	1171
Gas-meter. Proportional.....	H. J. Hyams.....	413,670	Oct. 29	2796	727	49	575
Gas. Obtaining hydrogen.....	L. Mond and C. Langer.....	417,068	Dec. 10	1357	329	49	1647
Gas or fluid by steam-pressure. Apparatus for regulating the flow of.....	G. C. Jackson.....	416,060	Nov. 26	2903	757	49	1330
Gas or fluid by steam-pressure. Apparatus for regulating the flow of.....	G. C. Jackson.....	416,061	Nov. 26	2904	757	49	1330
Gas or petroleum motor engine.....	G. Dalmier.....	418,112	Dec. 24	3254	775	49	1970
Gas-pressure-reducer station for streets.....	H. J. Bell.....	415,408	Nov. 5	485	123	49	238
Gas-pressure regulator.....	H. J. Bell.....	417,134	Dec. 10	1460	396	49	1667
Gas-pressure regulator.....	H. J. Bell.....	417,135	Dec. 10	1462	397	49	1667
Gas-pressure regulator.....	H. J. Bell.....	417,136	Dec. 10	1464	397	49	1668
Gas-pressure regulator.....	A. E. Sperry.....	418,245	Dec. 31	3192	839	49	2019
Gas. Process of and apparatus for manufacturing.....	T. G. Springer and M. A. Morse.....	413,135	Oct. 1	509	103	49	103
Gas. Process of and apparatus for the manufacture of.....	B. Loomis (Reissue).....	11,036	Oct. 29	2748	712	49	557
Gas-regulating burner.....	G. H. Gregory.....	414,638	Nov. 5	703	182	49	779
Gas-regulator and safety stop-valve. Combined.....	J. Stott.....	418,543	Dec. 31	3024	946	49	2114
Gas-regulator. Safety-pressure.....	C. M. Ryder.....	411,875	Oct. 1	143	37	49	30
Gas-retort furnace. Regenerative.....	W. Foulis.....	418,314	Dec. 31	3370	853	49	2041
Gas-washer.....	C. W. Jarrell.....	413,514	Oct. 22	2567	665	49	519
Gas-washer.....	C. W. Jarrell.....	413,515	Oct. 22	2568	665	49	519
Gas-washer.....	V. Kusnezov.....	415,646	Nov. 19	2979	594	49	1194
Gases. Apparatus for impregnating liquids with.....	W. Kadam.....	412,664	Oct. 8	1302	340	49	202
Gases. Apparatus for the manufacture of fuel and illuminating.....	P. W. Mackenzie.....	418,648	Dec. 31	3780	986	49	2144
Gasoline-fuel burner.....	T. A. Bryan.....	415,704	Nov. 26	2370	618	49	1320
Gasoline-vapor burner.....	J. F. Monahan.....	412,281	Oct. 8	733	190	49	151
Gate:							
See Bridge-gate.	Hatchway-gate.						
Car-gate.	Railway-gate.						
Elevator-gate.	Railway-crossing gate.						
End-gate.	Safety-gate.						
Farm-gate.	Self-closing gate.						
Flood-gate.	Sliding or rolling gate.						
Folding gate.	Wire gate.						
Gate.....	J. C. Alexander.....	416,885	Dec. 10	1097	296	49	1584

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr & E.	Vol.	Page.
Gate	D. Baker	418,363	Dec. 31	33-0	874	49	90-6
Gate	A. W. Edwards	417,961	Dec. 24	23-9	676	49	19-0
Gate	T. J. Eabanks	411,858	Oct. 1	124	32	49	27
Gate	A. O. Hess	416,729	Dec. 10	866	233	49	15-8
Gate	C. P. Lancaster	413,144	Oct. 13	3010	524	49	40-5
Gate	C. E. Little	413,267	Oct. 22	3292	669	49	5-2
Gate	H. Priddy	412,859	Oct. 15	15-8	414	49	3-2
Gate	J. M. Thompson	412,998	Oct. 15	17-7	406	49	3-1
Gate	T. K. Young	414,472	Nov. 5	4-1	114	49	8-1
Gates. Hanger for swinging or sliding.	T. K. Sargent	414,726	Nov. 12	24-0	217	49	9-13
Gear-cutting machines. Index-plate for	M. Schirk	416,954	Dec. 10	11-8	394	49	16-13
Gear. Friction.	I. E. Storey	418,297	Dec. 31	3237	847	49	40-4
Gear-wheel	W. N. Whiteley	415,755	Nov. 26	2448	639	49	12-5
Gears. Machine for cutting lobed	J. C. Fowler	414,803	Nov. 12	948	245	49	9-5
Gearing	J. L. Huber	418,516	Dec. 31	3583	935	49	21-06
Gearing	W. Joslin	415,044	Nov. 12	1314	342	49	10-05
Gearing for high-speed motors	P. Hockett	412,754	Oct. 15	1440	376	49	2-7
Gearing. Friction.	J. Henderson, Jr.	412,386	Oct. 8	886	331	49	1-50
Generator.							
See Electric generator. Steam-generator.							
Friction-generator. Thermo-electric gener-							
Gas-generator.							
Hydrocarbon-gener-							
ator.							
Gimp-pressing machine.	A. Edwards	414,689	Nov. 12	791	205	49	9-04
Gin. Horse.	F. Wennecke	411,946	Dec. 1	1401	562	49	1-51
Girder. Lifting trans-	A. Olsen	414,843	Nov. 12	1009	261	49	4-6
Glass articles. Mold for making	S. Washington	415,692	Nov. 20	2511	655	49	13-47
Glass bottles, jars, and other like articles. Mold for	J. R. Windmill	416,399	Dec. 3	357	94	49	14-39
Glass bottles. Tool for finishing	G. Garton	413,656	Oct. 29	2774	720	49	5-70
Glass by means of the sand-blast. Machine for ornamenting	B. C. and R. A. Tilghman	415,230	Nov. 19	1607	414	49	10-3
Glass carrier. Plate-	G. H. Dickey and W. Duster	417,237	Dec. 17	1696	436	49	1-63
Glass, &c. Device for stamping designs on	H. Schulze-Berge	416,236	Dec. 31	3147	825	49	30-16
Glass-furnace	A. G. Neville	416,008	Nov. 26	2818	738	49	13-14
Glass-furnace	J. Pease	416,703	Dec. 3	834	224	49	15-33
Glass. Leer for annealing.	J. K. Cummings	412,073	Oct. 1	425	111	49	8-6
Glass-mold.	R. D. Haines	417,176	Dec. 10	1223	414	49	16-79
Glass-mold.	G. M. Irwin	415,968	Nov. 26	2901	680	49	12-66
Glass. Mold for curving plate	J. Scott	417,097	Dec. 1	1401	562	49	1-51
Glass. Ornamenting	B. C. and R. A. Tilghman	415,229	Nov. 19	1606	413	49	10-3
Glass-polisher. Spindle of	F. Scheffold and G. F. Penn	414,228	Nov. 5	118	28	49	7-1
Glass-polishing apparatus. Plate-	A. F. Chandler	412,367	Oct. 8	861	224	49	16-5
Glass. Table for the manufacture of plates.	H. Semple	414,431	Nov. 5	111	49	10-3	
Glasses, &c. Apparatus for forming	N. B. Scott	411,969	Oct. 1	276	71	49	3-6
Glassware. Apparatus for the manufacture of	H. Schulze-Berge	414,727	Nov. 12	841	217	49	9-13
Glassware. Decorating	H. Schulze-Berge	418,234	Dec. 31	3142	825	49	20-16
Glassware. Machine for finishing	W. S. Richardson	412,628	Oct. 8	1300	346	49	8-25
Glassware. Making hollow	J. B. Curtis	414,144	Oct. 29	3490	809	49	7-19
Glassware. Manufacture of	H. Schulze-Berge	418,235	Dec. 31	3143	824	49	20-16
Glassware. Manufacture of molded	L. Appert	417,306	Dec. 17	1711	403	49	17-25
Glassware. Manufacturing	D. C. Ripley	414,588	Nov. 5	624	163	49	8-4
Glassware. Tool for flaring and crimping	H. Franz	416,099	Nov. 26	2975	775	49	13-43
Glove	J. Comrie	416,358	Dec. 3	309	81	49	14-29
Glove	J. B. Ray and E. Depuy	411,959	Oct. 1	317	63, 83	49	6-5
Glove-fastener	A. M. English	412,372	Oct. 8	820	236	49	17-6
Glove-fastener	G. W. Jackman	413,399	Oct. 22	2406	623	49	4-87
Glove-fastener	G. W. Jackman	416,678	Dec. 3	791	216	49	12-27
Glove-fastening	W. S. Richardson	412,926	Oct. 8	751	196	49	15-4
Glove-fastening	W. S. Richardson	412,628	Oct. 8	1300	346	49	8-25
Gine compound	R. W. Johnson	415,207	Nov. 19	1581	402	49	10-57
Gine, &c. Compound to be used as a substitute for	H. C. Russell and E. E. Herrington	414,257	Nov. 5	118	28	49	7-1
Glue-melting apparatus	M. F. Bingham	412,720	Oct. 15	1397	365	49	3-61
Glue-stock. Machine for cutting	F. J. Fischer	414,796	Nov. 12	895	232	49	9-24
Gold and silver from ore. Separating	J. S. MacArthur and R. W. and W. Forrest	418,137	Dec. 24	2998	809	49	19-77
Gold and silver from their ores. Extracting	H. F. Julian	418,134	Dec. 24	2995	785	49	19-77
Gold. Apparatus for the amalgamation of	A. Woodhouse	416,390	Dec. 3	359	94	49	14-40
Gold by chlorination. Apparatus for the extraction of	C. T. J. Vantin	413,768	Oct. 29	2937	765	49	6-1
Gold from ores. Apparatus for applying chlorine to the extraction of	G. B. Hannay	412,610	Oct. 8	1219	320	49	24-6
Gold from ores. Extracting	J. W. Goetz	416,781	Dec. 10	941	231	49	15-63
Gold. Method of and apparatus for extracting	W. A. Merralls	412,643	Oct. 8	1270	331	49	2-26
Gold or silver by chlorination. Extracting	J. B. A. Simonnet	413,696	Oct. 29	2924	739	49	5-79
Gold ores. Chlorinating	H. H. Pollok	415,060	Nov. 12	1332	348	49	10-10
Gong or tap-hell	J. P. Tirrell	416,243	Dec. 3	131	37	49	13-84
Gossamer	W. D. Stearns	418,091	Dec. 24	2903	762	49	19-60
Governor	G. F. Annable	412,042	Oct. 1	542	142	49	10-9
Governor and cut-off-valve gear	J. D. Gray	417,170	Dec. 10	1314	412	49	16-77
Governor. Engine	P. Bigelow	415,664	Nov. 19	2301	599	49	11-59
Governor. Engine	W. H. Jenks	417,728	Dec. 24	2363	622	49	18-27
Governor for electro-dynamic machines	G. F. Card	411,728	Oct. 1	14	5, 6	49	6
Governor for electro-dynamic machines	G. F. Card	411,753	Oct. 1	15	6	49	6
Governor for fluid compressors or pumps	F. Lamsberg	415,519	Nov. 19	2071	537	49	11-54
Governor. Pressure	G. B. Price	412,293	Oct. 8	745	194	49	15-4

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. G.	Vol.	Page.
Governor. Steam.....	V. W. Blanchard.....	413,909	Oct. 29	3142	820	49	644
Governor. Steam-engine.....	L. Bell and W. H. P. Creighton.....	418,692	Dec. 31	3714	831	49	2131
Governor. Steam-engine.....	L. C. Morgan.....	414,816	Nov. 12	965	250	49	938
Governor. Steam-engine.....	J. A. Seymour.....	417,515	Dec. 17	2043	545	49	1789
Grader. Road.....	A. Bronson.....	414,674	Nov. 12	768	198	49	899
Grader. Road.....	H. J. Chambers.....	413,596	Oct. 29	3042	703	49	622
Grain. Apparatus for drying, heating, cooling, or purifying.....	T. and G. M. Parkinson.....	417,373	Dec. 17	1666	451	49	1716
Grain-binder.....	M. E. Benedict.....	417,853	Dec. 24	2556	673	49	1693
Grain-binder.....	W. H. Berry.....	415,603	Nov. 19	2212	577	49	1181
Grain-binder.....	J. W. Blood.....	413,016	Oct. 15	1817	475	49	368
Grain-binder.....	J. S. Davis.....	416,577	Dec. 3	640	173	49	1497
Grain-binder.....	W. M. Holmes.....	414,839	Nov. 12	999	258	49	945
Grain-binder.....	A. M. Jenkins.....	413,283	Oct. 22	2321	579	49	455
Grain-binder.....	L. Miller.....	411,821	Oct. 1	67	18	49	16
Grain-binder.....	W. M. Piatt.....	415,123	Nov. 12	1416	369	49	1027
Grain-binder.....	W. M. Piatt.....	415,124	Nov. 12	1418	370	49	1027
Grain-binder.....	A. O. Slents.....	418,241	Dec. 31	3156	827	49	2018
Grain-binder.....	A. O. Slents.....	418,242	Dec. 31	3158	828	49	2019
Grain-binder. Automatic.....	W. N. Whiteley.....	415,757	Nov. 26	2450	639	49	1236
Grain-binder butt rake and evener.....	M. L. Nichols.....	414,162	Oct. 29	3529	919	49	725
Grain-binder caster.....	S. Albright.....	414,475	Nov. 5	454	115	49	832
Grain-binder grain-saving attachment.....	M. L. Nichols.....	414,163	Oct. 29	3529	919	49	726
Grain-binder tucker.....	M. L. Nichols.....	414,161	Oct. 29	3527	919	49	725
Grain-binders. Band-securing mechanism for.....	J. S. Davis.....	412,914	Oct. 15	1667	435	49	337
Grain-binders. Knotting device for.....	W. N. Whiteley and W. Bayley.....	415,756	Nov. 26	2449	639	49	1235
Grain-binding machine.....	H. J. Case.....	417,811	Dec. 24	2495	657	49	1829
Grain-bins. Electric indicator for.....	A. C. Thompson and H. E. Newton.....	417,117	Dec. 10	1439	390	49	1661
Grain-cleaner.....	B. Heit.....	416,916	Dec. 10	1140	311	49	817
Grain-cleaner.....	O. M. Morse.....	414,431	Nov. 5	395	97	49	817
Grain-cleaning machine.....	J. C. Fisher.....	414,510	Nov. 5	504	128	49	842
Grain-drill.....	W. A. Van Runt.....	412,808	Oct. 15	1513	395	49	309
Grain-elevator.....	V. Weber and J. J. Harrison.....	417,614	Dec. 17	2197	585	49	1817
Grain-elevator and cleaner.....	A. Flipp.....	411,799	Oct. 1	32	10	49	10
Grain-meter.....	A. E. Clay.....	417,543	Dec. 17	2102	559	49	1737
Grain-meter.....	S. B. Hart.....	413,322	Oct. 22	2290	595	49	466
Grain-meter.....	B. F. Warner.....	416,525	Dec. 3	560	152	49	1481
Grain-meter. Rotary.....	R. and A. Bohnenblast.....	414,750	Nov. 12	873	226	49	920
Grain-meter. Rotary.....	J. S. B. T. W. O. and C. C. Duffy.....	412,076	Oct. 1	430	112	49	85
Grain or malt bin.....	F. H. Buchheim.....	413,370	Oct. 22	2369	613	49	479
Grain or manure drill register.....	F. H. Buchheim.....	413,367	Dec. 31	3262	851	49	2059
Grain-rule.....	J. Barker.....	414,365	Nov. 5	272	69	49	703
Grain scalper and grader.....	T. Ponsar.....	417,836	Dec. 24	2528	666	49	1829
Grain-separator.....	G. A. Smith.....	418,658	Dec. 31	3709	899	49	2147
Grain-separator.....	G. C. Beaman.....	413,161	Oct. 22	2046	532	49	418
Grain-separator.....	A. J. Etzold.....	415,700	Nov. 26	2390	621	49	1222
Grain-separator.....	F. Prinz.....	418,587	Dec. 31	3699	964	49	2126
Grain-separator and cleaner.....	M. N. Laufenburg.....	416,464	Dec. 3	461	125	49	1462
Grain-shocking machine.....	J. Bomgardner.....	414,292	Nov. 5	151	38	49	767
Grain-toller.....	T. M. Nesbitt.....	413,984	Oct. 15	1110	499	49	398
Grain-turner.....	S. Hirschler.....	415,460	Nov. 19	1972	512	49	1133
Graining.....	F. A. Walters.....	416,976	Dec. 10	1210	331	49	1618
Grate-front.....	W. E. Fitch.....	414,202	Nov. 5	37	8	49	745
Grate.....	J. H. Knox.....	416,789	Dec. 10	951	257	49	1564
Grate.....	G. W. Walker.....	412,570	Oct. 8	1150	301	49	924
Grate.....	E. B. Woolston.....	412,317	Oct. 8	783	204	49	160
Grate. Revolving.....	H. Nicoll.....	413,731	Nov. 26	2411	630	49	1292
Grate. Rocking.....	C. E. Hitchings.....	416,332	Dec. 3	265	69	49	1432
Grate. Ventilating.....	A. H. Jackson.....	418,184	Dec. 31	3074	807	49	2001
Grave-protector.....	L. Hahn.....	415,107	Nov. 12	1395	364	49	1023
Grease-cup.....	J. F. Loneragan.....	417,430	Dec. 17	1901	569	49	1761
Grease-cup.....	J. H. Sorden.....	412,556	Oct. 8	1130	295	49	230
Griddle. Cake.....	H. Burt.....	414,285	Nov. 5	157	39	49	769
Grillages, platforms, or foundations of structures to piles or other materials. Fastening.....	R. Hunt.....	412,757	Oct. 15	1450	379	49	298
Grinder. Automatic knife.....	A. E. Creigh.....	417,901	Dec. 10	1245	340	49	1025
Grinding and crushing surface.....	A. P. Stephens.....	413,558	Oct. 8	1135	296	49	231
Grinding and polishing metals, &c. Apparatus for.....	J. A. Hess.....	412,616	Oct. 1	1901	569	49	1761
Grinding horsehoe-calks. Machine for.....	G. W. Barian.....	417,532	Dec. 17	2085	533	49	1394
Grinding-machine.....	G. W. Stratton and G. McCulloch.....	415,004	Nov. 12	1252	327	49	994
Grinding-machine.....	W. C. F. Stöckel.....	415,896	Nov. 26	2636	687	49	1771
Grinding-machine. Cutter.....	A. Bender.....	412,589	Oct. 8	1184	311	49	240
Grinding-machine. Rotary.....	W. J. McGehe.....	414,565	Nov. 5	590	152	49	857
Grinding-machine. Tool.....	M. E. Coe.....	418,309	Dec. 31	3264	852	49	2040
Grinding-mill.....	M. C. Cogswell.....	412,019	Oct. 1	351	91	49	71
Grinding-mill.....	D. Cornell.....	418,168	Dec. 31	3050	801	49	1997

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Grinding-mill.....	A. Millot.....	416,371	Dec. 3	330	86	49	1434
Grinding-mill.....	L. M. Nettleton.....	418,639	Dec. 31	3746	978	49	2137
Grinding-mill.....	J. Waldron and C. H. Sprout.....	417,769	Dec. 24	2418	638	49	1867
Grinding-mill, Portable.....	F. Hübner.....	416,176	Dec. 17	254	506	49	1759
Grinding mower and reaper knives. Device for.....	L. L. Tapp.....	416,096	Dec. 24	2609	764	49	1868
Grinding plane surfaces. Machine for.....	E. R. Hyde and R. C. Horner.....	416,109	Nov. 26	2995	780 781	49	1347
Grindstone attachment.....	L. H. Sutton and A. L. Collins.....	417,754	Dec. 24	2406	634	49	1865
Grip, Intermittent.....	J. T. Hostler.....	414,114	Oct. 29	2451	897	49	710
Grip-lock.....	J. Stephenson.....	412,559	Oct. 8	1126	296	49	231
Gripper, Auxiliary.....	C. W. Hilton.....	415,639	Nov. 19	2270	592	49	1193
Guard.....							
See Bridge-guard.	Key-hole guard.						
Buckle-guard.	Mustache-guard.						
Car-guard.	Pruning-shears guard.						
Cattle-guard.	Railway foot-guard.						
Fence-guard.	Saw-guard.						
Fork-guard.	Sewing-machine needle-guard.						
Hat-guard.							
Hatchway-guard.							
Guard-finger.....	R. W. Walker.....	413,116	Oct. 15	1968	512	49	396
Guitar.....	E. J. Cubley.....	416,715	Dec. 10	848	230	49	1545
Gun.....	H. B. Gorton.....	417,241	Dec. 17	1613	438	49	1706
Gun, Animal.....	W. C. and S. Foreman.....	414,306	Nov. 5	191	77	49	776
Gun-carriage.....	J. B. G. A. Canet.....	413,130	Oct. 15	1964	517	49	400
Gun-carriage, Disappearing.....	S. H. Emmons.....	415,708	Nov. 26	2378	620	49	1222
Gun-lock.....	H. Comstock.....	414,796	Nov. 12	938	243	49	933
Gun-lock.....	H. Comstock.....	414,797	Nov. 12	940	244	49	933
Gun, Magazine.....	C. G. Harston.....	415,039	Nov. 12	1305	340	49	1094
Gun-sight, Tuhular.....	J. S. Blanksman.....	416,554	Dec. 3	602	163	49	1400
Guns. Apparatus for facilitating the loading of.....	J. B. G. A. Canet.....	417,145	Dec. 10	1478	401	49	1670
Guns. Carriage or mounting for quick-firing.....	A. Nohle.....	413,341	Oct. 22	2161	562	49	440
Guns. Electric firing mechanism for breech-loading.....	T. Nordenfeldt.....	411,831	Oct. 1	81	23	49	19
Guns. Firing attachment for breech-loading.....	A. J. Wiegand.....	417,638	Dec. 17	2308	610	49	1837
Guns. Rebound mechanism for breech-loading.....	C. A. King.....	412,340	Oct. 8	822	213	49	167
Gunpowder.....	P. Butler.....	418,552	Dec. 31	3634	911	49	2116
Gunpowder.....	A. F. Woods.....	418,635	Dec. 31	3764	916	49	2140
Gutter section and fastener.....	W. H. Hawkins.....	416,914	Dec. 10	1135	310	49	1602
Gymnastiums, Parallel bars for.....	F. Modier.....	412,772	Oct. 15	1469	383	49	969
Hair, Cleaning animal.....	E. J. Fischer.....	412,060	Oct. 1	454	107	49	37
Hair-crimper.....	I. W. Hevlinger.....	418,515	Dec. 31	3579	935	49	2105
Hair-curler.....	G. W. White.....	417,656	Dec. 17	2256	599	49	1867
Hair-dressing.....	N. S. Hawley.....	416,606	Dec. 3	682	165	49	1505
Hair-pin.....	C. Walter.....	413,797	Oct. 29	2077	776	49	609
Hair-restorer.....	E. Carney.....	416,459	Dec. 3	426	105	49	1455
Hair-ribbon.....	C. Groos.....	413,395	Oct. 22	2409	607	49	486
Halter.....	J. Greiser.....	417,864	Dec. 24	2571	677	49	1867
Halter.....	E. Harmon.....	417,636	Dec. 17	2292	593	49	1823
Halter.....	J. Lally.....	416,227	Dec. 3	109	31	49	1380
Halter.....	J. B. Mitchell.....	415,546	Nov. 19	2118	551	49	1164
Halter, yoke, and bridle. Combination.....	P. J. Krater.....	417,870	Dec. 24	2577	679	49	1898
Hame.....	F. L. Crosby.....	415,028	Nov. 12	1285	336	49	1000
Hame.....	P. Frazer.....	418,609	Dec. 31	3723	972	49	2133
Hame.....	J. Letchworth.....	415,722	Nov. 26	2365	625	49	1225
Hame.....	C. G. Ortmyer.....	415,280	Nov. 19	1659	438	49	1079
Hame.....	C. H. Lehmann and J. H. Southcott.....	412,633	Oct. 8	1259	328	49	254
Hame and collar for horses. Combined.....	J. S. Baker.....	412,358	Oct. 8	849	217	49	172
Hame-fastener.....	A. Fellows.....	413,931	Oct. 29	2177	530	49	653
Hame-fastener.....	J. Kregier.....	413,905	Oct. 29	2067	778	49	611
Hame-fastener.....	M. Kregier.....	416,266	Dec. 10	1152	315	49	1605
Hame-fastener.....	M. Noe.....	412,343	Oct. 8	827	216	49	168
Hame-fastener.....	J. L. O'Connor.....	416,532	Dec. 10	1043	281	49	1583
Hame-fastener.....	E. C. Vale.....	415,239	Nov. 19	1647	425	49	1070
Hame-line ring.....	T. Humphrey.....	416,635	Dec. 3	724	196	49	1514
Hames, Loggerhead for.....	J. B. Miles.....	416,664	Dec. 3	726	198	49	1528
Hammer.....	F. G. Stark.....	418,539	Dec. 31	3620	945	49	2113
Hammer. Bush.....	L. M. Nutting.....	412,532	Oct. 8	1097	288	49	923
Hammer. Foot-power.....	M. Redlinger.....	417,201	Dec. 10	1558	423	49	1696
Hammer for forging steel wheels. Steam.....	J. A. Facer.....	414,030	Oct. 29	2331	569	49	685
Hammer for forging steel wheels. Steam.....	J. A. Facer.....	414,109	Oct. 29	2446	596	49	709
Hammer. Power.....	C. A. Vaughn.....	412,809	Dec. 15	1514	395	49	310
Hammock.....	A. Fortenbaugh.....	417,161	Dec. 10	1502	409	49	1675
Hammock.....	I. E. Palmer.....	412,892	Oct. 15	1635	427	49	322
Hammock-end holder.....	R. E. L. Iceeman.....	416,110	Nov. 26	3001	781	49	1348
Hammock head-rest.....	T. Humphrey.....	414,316	Nov. 5	205	51	49	719
Hammock-spreader.....	G. E. Sutphen.....	416,242	Dec. 3	130	36	49	1304
Hand guard or shield.....	A. H. Neale.....	416,649	Dec. 10	1040	280	49	1572
Hand-strap for trunks.....	P. Carpeles.....	416,566	Dec. 3	621	169	49	1483
Handle.....							
See Auger-handle.	Sheet-metal handle.						
Hollow handle.	Tool-handle.						
Paper-box handle.							
Handle.....	F. H. Eldridge.....	414,690	Nov. 12	793	205	49	904

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. 2.	Vol.	Page.
Handle for implements. Hollow	W. W. Lee	412,377	Oct. 8	726	189	49	150
Handle for metallic vessels	W. C. Leavitt	412,763	Oct. 15	1458	381	49	329
Handle for tools or other articles	C. A. Dava	412,479	Oct. 8	1026	267	49	308
Handle machine. Dipper	J. A. O'Leary	412,389	Oct. 29	742	193	49	153
Ha die-rack	S. S. Underwood	417,119	Dec. 10	1432	390	49	1661
Handles. Blank for welded hollow	W. W. Lee	412,378	Oct. 8	729	190	49	150
Handles. Making hollow metalite	I. E. Moody	412,777	Oct. 15	1475	385	49	328
Hanger:							
See Car-brake hanger.	Insulating-hanger.						
Curtain-hanger.	Lamp-hanger.						
Door-hanger.	Pipe-hanger.						
Eaves-trough hang- er.	Shaft-hanger.						
Floor-arch-center hanger.	Stove-pipe hanger.						
Tobacco-hanger.							
Harmonic key-board attachment	J. M. Smith	419,398	Dec. 31	3384	883	49	2064
Harness	C. D. Elliott	418,078	Oct. 1	432	112	49	87
Harness	F. T. Livingston	418,036	Dec. 24	2830	747	49	1947
Harness attachment	J. Peterson	416,945	Dec. 10	1176	321	49	1610
Harness back-hand attachment	C. E. Ward	413,117	Oct. 15	1969	513	49	397
Harness box-loop	R. J. Mannheim	413,785	Oct. 29	2392	772	49	666
Harness for horse-blankets	E. S. Robinson and J. D. Minor	417,967	Oct. 29	3230	844	49	2024
Harness-loop	C. V. Baner	414,790	Nov. 12	926	240	49	830
Harness-loop	J. K. Hamilton	413,717	Oct. 29	2864	747	49	387
Harness-suspension device	G. C. Hale	412,094	Oct. 1	440	114	49	88-
Harrow	B. M. Barber	412,927	Oct. 15	1540	403	49	315
Harrow	J. A. Beard	414,896	Nov. 12	1098	282	49	962
Harrow	S. Gordenau	417,544	Dec. 17	2103	539	49	1797
Harrow	C. R. Davis	418,452	Dec. 31	3479	910	49	3083
Harrow	A. Downward	413,498	Oct. 22	2542	658	49	514
Harrow	A. Downward	413,499	Oct. 22	2543	658	49	514
Harrow	G. Gillies	415,410	Nov. 19	1866	491	49	1116
Harrow	A. Hirschheimer	413,290	Oct. 22	2147	552	49	1021
Harrow	H. H. Hollister and T. H. Hull	417,183	Dec. 10	1530	417	49	1621
Harrow	W. F. Hughes	414,047	Oct. 29	3353	874	49	6-9
Harrow	C. La Dow	415,113	Nov. 12	1490	366	49	1024
Harrow	A. Lindgren	412,107	Oct. 1	467	121	49	94
Harrow	P. E. Little	418,199	Dec. 31	3695	912	49	3098
Harrow	D. M. Loyd	416,475	Dec. 3	476	139	49	1463
Harrow	D. B. Smith	413,352	Oct. 22	2339	608	49	471
Harrow	W. S. Stevens	418,438	Oct. 8	944	248	49	194
Harrow	A. P. Vance	414,370	Nov. 5	1352	342	49	764
Harrow	W. Wilkes	412,816	Oct. 15	1523	398	49	312
Harrow and cultivator	J. T. Scarbrough	417,651	Dec. 17	2244	595	49	1826
Harrow and cultivator. Disk	T. M. Maxon	417,572	Dec. 17	2137	569	49	1804
Harrow and cultivator. Double side.	M. B. Gooding	416,908	Dec. 10	1137	308	49	1600
Harrow and land leveler	H. Knight	415,645	Nov. 19	2278	594	49	1194
Harrow and roller. Combined	J. A. Dawson	412,731	Oct. 15	1411	369	49	291
Harrow attachment	T. B. Hussey	418,517	Dec. 31	3585	935	49	2106
Harrow. Disk	E. C. Boyer	418,106	Dec. 24	2945	772	49	1968
Harrow. Disk	W. H. Nauman	413,539	Oct. 29	2596	672	49	594
Harrow. Disk	H. M. Rose	416,346	Dec. 3	291	78, 77	49	1436
Harrow-frame	J. McMahon	413,538	Oct. 22	2595	672	49	594
Harrow. Revolving	C. Fox	415,813	Nov. 26	2522	650	49	1250
Harrow. Rotary	G. P. Prentiss	413,630	Oct. 22	2733	708	49	553
Harrow. Spring-tooth	C. W. Conkling	416,993	Dec. 10	1224	338	49	1623
Harrow. Spring-tooth	T. R. Crane	418,568	Dec. 31	3532	929	49	2099
Harrow-tooth. Spring	R. G. Culbertson	416,400	Dec. 3	372	99	49	1443
Harrow-tooth. Spring	F. Van Patten	412,684	Oct. 15	1594	415	49	324
Harrow-tooth. Spring	F. Van Patten	412,685	Oct. 15	1595	416	49	324
Harvester	G. G. Hunt	413,065	Oct. 15	1879	491	49	380
Harvester	J. R. Thompson	418,091	Dec. 24	2916	765	49	1964
Harvester and binder. Corn	J. P. Dunn	415,242	Nov. 19	1630	418	49	1066
Harvester and shock-handler. Corn	E. Houtz	412,756	Oct. 15	1447	378	49	297
Harvester and thrasher. Feeding mechanism for combined	B. Holt	416,618	Dec. 3	699	189	49	1509
Harvester attachment	A. J. Price	414,121	Oct. 29	3461	899	49	2102
Harvester. Bean	A. Johnson	418,188	Dec. 31	3681	898	49	702
Harvester. Combined	J. and W. Paterson	417,936	Dec. 24	2934	707	49	1919
Harvester. Corn	R. S. Rinker	414,654	Nov. 5	735	190	49	885
Harvester. Corn	G. B. and J. T. Snow	412,209	Oct. 1	615	160	49	133
Harvester. Cotton	C. E. Graves	416,407	Dec. 3	380	102	49	1445
Harvester. Cotton	G. P. Salzenherer	418,785	Dec. 31	3379	881	49	2052
Harvester-frame and means for raising and lowering the same.	M. L. Nichols	414,159	Oct. 29	3522	917	49	734
Harvester. Grain	L. W. Noyes	414,341	Nov. 5	95	23	49	757
Harvester. Grain	W. F. Olin	415,279	Nov. 19	1682	436	49	1077
Harvester. Grain-binding	J. S. Davis	417,473	Dec. 17	1961	522	49	1773
Harvester. Grain-binding	A. E. Ellinwood	415,862	Nov. 26	2593	677	49	1264

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Harvester-reel	L. Miller	411,639	Oct. 1	65	18	40	16
Harvester. Self-binding	D. R. Brown	412,459	Oct. 8	981	257	40	159
Harvester sheaf-carrier	M. Kane	413,255	Oct. 22	9179	567	40	441
Harvester sickle-bar	J. A. Sewell	416,963	Dec. 10	1107	247	40	1615
Harvesters and binders. Header attachment for	G. A. Joy	411,993	Oct. 1	309	80, s 1	40	62
Harvesters and grain-binders. Bundle-carrier and dropper for	J. A. Graham	417,418	Dec. 17	1862	504	40	1757
Harvesters. Grain-shocking attachment for	L. Miller	414,776	Nov. 12	907	234	40	926
Harvesters or grain-binders. Device for raising and lowering	J. Keller	412,627	Oct. 8	1253	327	40	252
Harvesters. Swathing attachment for	D. B. Schaeffer	418,141	Dec. 24	3603	757	40	1973
Harvesting-machine	M. L. Nichols	414,164	Oct. 29	3530	921	40	736
Harvesting-machine. Bean	M. L. Nichols	414,165	Oct. 29	3532	922	40	736
Harvesting-machine. Cane or corn	J. Yocum	416,701	Dec. 3	821	222	40	1533
Harvesting-machine elevator	H. Fatté	411,798	Oct. 1	31	10, 11	40	16
Harvesting-machine reel	C. D. Towne	416,764	Dec. 10	914	246	40	1557
Hat-asplack	M. L. Nichols	414,160	Oct. 29	3525	918	40	725
Hat and comb hook	J. P. Descalso and R. Mortimer	418,505	Dec. 31	3555	930	40	2100
Hat-crown press	C. L. Webber	413,467	Oct. 22	2404	547	40	504
Hat-forming machine	W. J. Walker	418,392	Dec. 31	3330	884	40	2065
Hat-guard	S. C. Palmer	415,217	Nov. 19	1502	410	40	1069
Hat-hook	F. F. Fife and W. V. Biéla	414,507	Nov. 5	501	127	40	843
Hat-mark. Adjustable	H. Darcy	412,074	Oct. 1	428	111	40	86
Hat-pouncing machine	G. B. Foote	416,672	Dec. 3	784	214	40	1525
Hat-pouncing machine	R. Eickemeyer	415,343	Nov. 10	1623	419	40	1066
Hat-pouncing machine	J. B. Howe	414,415	Nov. 5	347	87	40	898
Hat-pouncing machine	J. C. Wilson	414,355	Nov. 5	257	64	40	790
Hat-pressing machine	T. P. Wilkinson	416,345	Dec. 3	134	37, 38	40	1334
Hat-swat	G. Parkinson	412,801	Oct. 1	606	157	40	121
Hat-tray	C. Fisher	415,964	Nov. 26	2760	721	40	1301
Hats. Holder and packing device for	W. M. Levy	417,677	Dec. 17	3255	605	40	1813
Hats. Machine for fitting sweat-leathers in	G. E. Brush	418,498	Dec. 31	3548	928	40	2029
Hats. Means for ventilating	H. A. Fechter	418,282	Dec. 31	3215	841	40	2030
Hatchet	W. Fowler	414,692	Nov. 12	795	206	40	905
Hatchway-door for elevators	H. I. Coe and J. J. McBride	415,618	Nov. 19	2837	583	40	1146
Hatchway doors. Automatic device for closing elevator	G. J. Dickson	416,583	Dec. 3	649	176	40	1408
Hatchway. Elevator	N. Beckwith	413,643	Oct. 29	2758	716	40	568
Hatchway gate. Elevator	C. S. Enoch	413,630	Oct. 22	2730	706	40	550
Hatchway guard. Elevator	D. Frazer	413,315	Oct. 22	2285	594	40	465
Hay and grain stackers. Elevating device for	F. M. Cropp	415,900	Nov. 26	2647	693	40	1276
Hay-cap	J. H. Rice	416,747	Dec. 10	890	240	40	1553
Hay-carrier	W. H. and C. A. Gutenkunst	413,751	Oct. 29	2955	770	40	605
Hay-elevator trip-hook	C. Hamaker	411,860	Oct. 1	137	33	40	27
Hay-fork	J. Horn	416,917	Dec. 10	1141	311	40	1603
Hay-fork	L. V. Myers	415,729	Nov. 26	2408	629	40	1228
Hay-fork. Drop-tine	J. Farrell	416,557	Dec. 31	3640	952	40	2117
Hay-fork. Harpoon	J. S. Durning	414,303	Nov. 5	183	45	40	774
Hay-loader	J. J. Shively	412,130	Oct. 1	590	132	40	101
Hay-press	L. J. Brown	416,699	Dec. 10	1113	304	40	1597
Hay-press	L. L. Moe	416,416	Dec. 3	395	105	40	1448
Hay-press	G. W. Robbarts	413,264	Oct. 22	2191	571	40	447
Hay-presses. Plunger-operating means for	W. A. Mayo	417,677	Dec. 24	2568	681	40	1900
Hay-rack	L. Riedel	414,634	Nov. 12	960	233	40	941
Hay rake and loader	E. W. Renard	412,284	Oct. 8	747	195	40	154
Hay rake and stacker	W. D. Watkins	417,300	Dec. 17	1704	459	40	1724
Hay rake and stacker. Combined	P. Heints	413,654	Oct. 29	3055	796	40	624
Hay-rake. Horse	J. F. Glidden	416,008	Dec. 24	2792	757	40	1940
Hay-rake. Horse	P. E. Little	413,736	Oct. 29	2875	749	40	500
Hay-rake. Horse	W. J. Jersdorff	418,342	Dec. 31	3312	866	40	2040
Hay-slings. Device for binding and elevating	J. W. Wood	414,609	Nov. 19	3022	225	40	1144
Hay-stacker	G. W. Callen	417,353	Dec. 17	1791	482	40	1759
Hay-stacking machine	R. J. Smith	412,555	Oct. 8	1128	293	40	329
Head-light. Locomotive	E. Meredith	416,116	Nov. 26	3007	783	40	1349
Head-protector	P. Gold	413,139	Oct. 15	3201	532	40	461
Header and thrasher	G. W. Haines	414,041	Oct. 29	3346	872	40	688
Heading-machines. Foot-board for	J. N. and C. B. Oliver	417,331	Dec. 17	1748	471	40	1732
Heat-registers. Drying-rail and foot-rest for	M. A. Sims	417,102	Dec. 10	1410	384	40	1657
Heater:							
See Air-heater. Soldering-iron heater.							
Car-heater. Steam-heater.							
Curling-iron heater. Tank-heater.							
Electric heater. Tire-heater.							
Feed-water heater. Ventilating-heater.							
Portable heater. Water-heater.							
Sad-iron heater.							
Heater	J. Boma	415,319	Nov. 19	1752	455	40	1091
Heater	J. Boma	417,806	Dec. 24	2488	655	40	1981
Heater	E. S. Wilber	412,443	Oct. 8	959	252	40	195

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Heating and ventilating houses. Apparatus for.....	W. H. Drake	415,706	Nov. 26	5375	619	49	1221
Heating apparatus.....	J. J. Hogan	416,014	Dec. 3	686	188	49	1308
Heating apparatus.....	H. Gefroerer	414,030	Oct. 29	3344	571	49	687
Heating apparatus. Electric.....	H. O. and A. L. Sprague	417,506	Dec. 17	2173	578	49	1812
Heating apparatus. Electric.....	C. E. Carpenter	415,856	Nov. 26	2584	675	49	1262
Heating apparatus. Hot-water.....	M. W. Dewey	416,369	Dec. 3	311	81	49	1430
Heating apparatus. Hot-water.....	D. S. Richardson	418,580	Dec. 31	3695	965	49	2127
Heating apparatus. Thermotic regulator for.....	J. Trueb	416,656	Dec. 3	758	307	49	1590
Heating-coil.....	L. Hussey	418,566	Dec. 31	3659	957	49	2130
Heating-coil. Steam.....	L. F. Hauptman	412,088	Oct. 1	445	115	49	89
Heating-furnace.....	H. Swindell	412,936	Oct. 15	1609	543	49	343
Heating-furnace. Regenerative.....	A. Younger	414,374	Nov. 5	139	33	49	765
Heating. Liquid composition for use in systems of.....	M. Wanner	417,213	Dec. 10	1575	444	49	1690
Heating railway-cars or other structures.....	G. A. Houston	415,273	Nov. 19	1668	432	49	1075
Heating railway-cars or other structures by the agency of live or exhaust steam.....	G. A. Houston and H. Hackney	415,271	Nov. 19	1663	431	49	1074
Heating vessels or chambers by steam.....	C. Jones	417,180	Dec. 10	1540	432	49	1632
Hedge-trimmer.....	J. Hoopes and E. Marvin	418,263	Dec. 3	165	44	49	1400
Heel and sole edge blacking machine.....	C. F. Leighton	415,674	Nov. 19	2335	607	49	1203
Heel-burnishing machine.....	J. M., J. A. J., and S. A. Gimson	415,340	Nov. 19	1786	464	49	1097
Heel-burnishing machine.....	H. W. Horne and H. Lake	414,219	Nov. 5	64	15	49	751
Heel forming and loading machine.....	F. F. Raymond, 3d	413,503	Oct. 22	2615	678	49	528
Heel-lifts. Apparatus for assembling.....	C. W. Glidden	414,040	Oct. 29	3345	872	49	637
Heel-machine.....	J. A. Josselyn	417,645	Dec. 17	2230	595	49	1825
Heel-machine.....	F. F. Raymond, 3d	415,559	Nov. 19	2143	560	49	1169
Heel-nailing machine.....	F. F. Raymond, 3d	412,414	Oct. 8	925	242	49	187
Heel-nailing machine.....	F. F. Raymond, 3d	414,448	Nov. 5	415	105	49	894
Heel-nailing machine.....	C. C. Small	413,973	Oct. 29	3337	846	49	665
Heel-slugging machine.....	H. Schieke	413,463	Oct. 22	2189	646	49	503
Heel-seats. Machine for bending.....	J. Berkey	417,362	Dec. 10	1532	370	49	1646
Heel-trimming cutter.....	J. L. Packard	413,559	Oct. 30	3217	840	49	661
Heel-trimming machine.....	F. N. Ethridge and C. W. B. Fuller	419,026	Oct. 1	361	93	49	73
Heel-trimming machine.....	D. D. C. Pillsbury	417,835	Dec. 24	2527	655	49	1889
Heel-trimming machine.....	J. W. Plummer	413,090	Oct. 15	1319	592	49	888
Heels. Compressing and attaching.....	F. F. Raymond, 3d	415,560	Nov. 19	2145	561	49	1170
Heeling machine.....	C. W. Glidden, A. D. Elliott, and G. E. Fellows	415,670	Nov. 19	2312	604	49	1201
Heeling-machine nail die.....	J. H. Pope	411,835	Oct. 1	92	25	49	21
Heeling-machine nail die.....	J. H. Pope	412,292	Oct. 8	745	194	49	153
Heel-house.....	S. Harbaugh	412,500	Oct. 8	1058	276	49	214
Hides. Apparatus for treating.....	H. E. Freudenberg	413,601	Oct. 22	2295	701	49	544
Hinge.....	S. N. Crane	418,332	Dec. 31	3302	863	49	2047
Hinge.....	L. J. Harris	418,021	Dec. 24	2210	742	49	1943
Hinge.....	C. Jaenig	412,093	Oct. 1	450	117	49	90
Hinge.....	R. T. Starr	418,540	Dec. 31	3621	945	49	2113
Hinge.....	R. M. Towson	414,461	Nov. 5	432	109	49	827
Hinge.....	A. T. Williams	415,063	Nov. 12	1364	356	49	1016
Hinge.....	J. U. Wiese	416,044	Nov. 26	2280	732	49	1325
Hinge. Awning blind.....	F. M. Baker	417,623	Dec. 17	2209	588	49	1819
Hinge. Carriage.....	G. H. Royce	412,123	Oct. 1	483	126	49	97
Hinge. Friction.....	W. W. Davis	413,891	Oct. 29	3118	813	49	638
Hinge. Gate.....	P. C. Zimmerman	417,334	Dec. 17	1602	435	49	1244
Hinge. Gate.....	P. C. Zimmerman	414,932	Nov. 12	1146	299	49	973
Hinge. Latch.....	E. E. De Kalb	412,288	Oct. 22	2255	585	49	450
Hinge. Lock.....	J. S. Baker	415,066	Nov. 13	1368	358	49	1017
Hinge. Lock.....	W. S. McNeil	416,120	Nov. 26	3020	700	49	1352
Hinge. Shutter.....	T. Steckel	417,111	Dec. 10	1419	357	49	1659
Hinge. Spring.....	H. L. Ferris	411,956	Oct. 1	261	67	49	53
Hinge. Spring.....	H. L. Ferris	414,201	Nov. 5	35	8	49	745
Hinge. Spring.....	H. C. Walker	416,460	Dec. 17	457	126	49	1461
Hinge. Spring.....	H. W. Ketcham	417,047	Dec. 10	1322	363	49	1611
Hinge. Spring.....	G. W. Warner	415,232	Nov. 19	1610	415	49	1063
Hinge. Spring.....	H. T. Helbing	414,905	Nov. 12	1109	286	49	965
Hitching-post.....	W. B. Wilcox	417,617	Dec. 17	2201	586	49	1818
Hob-nail.....	J. R. Hurd and H. H. McLane	415,151	Nov. 12	1542	396	49	1059
Hoe and cotton-chopper. Flexible.....	M. Rufe	417,444	Dec. 17	1917	512	49	1764
Hoeing machine.....	E. B. Hurd	416,840	Dec. 10	1030	277	49	1580
Hoeing machine.....	W. A. Sharp	415,823	Nov. 26	2239	605	49	1254
Hoeing bucket.....	L. G. Ladd	413,524	Oct. 22	2279	668	49	551
Hoeing-machine.....	F. D. Loomis	413,623	Oct. 22	2274	706	49	551
Hoeing machinery.....	T. C. Walker	414,347	Nov. 5	346	62	49	788
Hoeing mechanism.....	T. A. Weston	413,904	Oct. 15	1794	469	49	363
Holdback.....	R. C. Baird	411,774	Oct. 1	3	3	49	3
Holdback. Vehicle.....	H. Brunson	413,357	Oct. 22	2349	609	49	475
Holdback. Vehicle.....	G. W. Hawhurst	414,335	Nov. 5	542	130	49	840
Holdback. Vehicle.....	G. L. Hyder	413,184	Oct. 22	2275	540	49	434
Holdback. Vehicle.....	H. A. Koogler and C. H. Slonecker	413,143	Oct. 15	2009	523	49	425
Holdback. Vehicle.....	H. J. Welch	416,818	Dec. 10	991	268	49	1572

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Horseshoe-nail and blank therefor	D. E. Kempster	417,490	Dec. 17 1999	{ 534		49	1780
Horseshoe-nail and calk combined	A. Carstens	418,738	Oct. 15 1408	{ 536		49	290
Horseshoe-nails. Machine for making	C. A. Hansen and O. G. Gulbrandsen	413,937	Oct. 29 3186	{ 892		49	655
Horseshoe-nails. Making	C. D. Rogers	414,256	Nov. 5 115	{ 27		49	761
Horseshoe-nails. Manufacture of	W. W. Miner	415,818	Nov. 26 2539	{ 660		49	1262
Horseshoe-pad	M. S. Starkweather	415,003	Nov. 12 1251	{ 337		49	994
Hose	E. A. Taft	417,796	Dec. 24 2472	{ 651		49	1878
Hose-coupling	F. Lansberg	415,518	Nov. 19 3070	{ 537		49	1154
Hose-coupling	J. F. Nachtrieb	411,820	Oct. 1 89	{ 22		49	19
Hose-coupling	N. J. Pritchard	415,062	Nov. 12 1334	{ 349		49	1010
Hose-coupling	L. J. Rice	418,325	Dec. 31 3129	{ 881		49	2013
Hose-coupling. Brake	E. A. Leland	412,103	Oct. 1 461	{ 130		49	93
Hose-reel	W. T. Y. Schenck	416,863	Dec. 10 1060	{ 285		49	1587
Hose-washing apparatus	H. Boynton, C. S. Hibbert, and A. C. Stearns	415,935	Nov. 26 2718	{ 711		49	1292
Hospital for patients with infectious or contagious diseases.	M. L. Davis	413,360	Oct. 22 2354	{ 609		49	476
Hot-air-distributing furnace	E. Molloy	416,734	Dec. 10 874	{ 236		49	1550
Hot-air engine	J. H. Chase	417,857	Dec. 24 2563	{ 675		49	1895
Hot-air furnace	F. M. Campbell	414,018	Oct. 29 3316	{ 805		49	681
Hot-air furnace	W. W. Kelsey	415,870	Nov. 26 2603	{ 681		49	1266
Hot-air furnace	D. S. Richardson	412,840	Oct. 15 1529	{ 414		49	323
Hot-air furnace	D. S. Richardson	415,880	Nov. 26 2532	{ 661		49	1292
Hot-air register	W. J. Johnson	411,990	Oct. 1 306	{ 79		49	69
Hot-water boiler	J. Keith	412,098	Oct. 1 454	{ 118		49	91
Hotel indicator	W. C. Grafton	415,105	Nov. 12 1393	{ 364		49	1022
House: See Hen-house. Portable house.							
Houses. Construction of	R. Milde	414,795	Dec. 10 958	{ 259		49	1566
Hub and axle. Vehicle	W. H. Wright	414,830	Nov. 12 988	{ 355		49	942
Hub band. Vehicle	J. Maris	417,735	Dec. 24 2576	{ 680		49	1860
Hub-cap	T. P. Anderson, Jr.	418,149	Dec. 31 3024	{ 794		49	1991
Hub or pulley. Divided	O. L. Dunton	412,735	Oct. 15 1416	{ 370		49	292
Hub. Vehicle	T. J. Reid	416,073	Nov. 26 2999	{ 763		49	1335
Hub. Wheel	J. E. Fitts	415,508	Nov. 19 3050	{ 592		49	1149
Hubs. Point-band for	U. Gibeault	416,361	Dec. 3 314	{ 82		49	1430
Hubs. Point-band for	J. Maris	418,304	Dec. 31 3101	{ 813		49	2007
Huller: See Tea-buller.							
Husking implement	R. W. Hubbard	414,543	Nov. 5 554	{ 142		49	851
Husking-pln	H. H. Perkins	418,219	Dec. 31 3120	{ 817		49	2011
Hydrant	W. H. Bootman	414,486	Nov. 5 469	{ 110		49	835
Hydrant	J. Dowling	417,633	Dec. 17 2226	{ 592		49	1922
Hydrant	C. Hays	416,104	Nov. 26 2980	{ 776		49	1344
Hydrant	T. S. McElbese	415,119	Nov. 12 1407	{ 367		49	1025
Hydrant-coupling	S. R. Hackley	418,513	Dec. 31 3576	{ 934		49	2104
Hydraulic-cylinder lubricator	J. G. Gracey	416,598	Dec. 3 609	{ 181		49	1502
Hydraulic motor	J. W. Garrett, Jr.	416,033	Nov. 26 2964	{ 749		49	1322
Hydraulic motor	W. P. Gibson	412,331	Oct. 8 807	{ 209		49	164
Hydraulic transit. Carrier for	J. E. Robinson	414,082	Oct. 29 3407	{ 885		49	701
Hydrocarbon-burner	J. A. Cowles	417,152	Dec. 10 1490	{ 406		49	1673
Hydrocarbon-burner	H. C. Davis	413,640	Oct. 29 3706	{ 698		49	1860
Hydrocarbon-burner	F. B. Meyers	416,413	Dec. 3 389	{ 104		49	1447
Hydrocarbon-burner	M. M. Monsanto	418,582	Dec. 31 3682	{ 962		49	2124
Hydrocarbon-burner	J. Reid	414,079	Oct. 29 3402	{ 884		49	700
Hydrocarbon-burner	H. C. Davis	418,481	Dec. 31 3519	{ 929		49	2091
Hydrocarbon-burner	J. H. Whitman	417,302	Dec. 17 1706	{ 424		49	1284
Hydrocarbon-burner	J. Wilson and A. Mason	417,457	Dec. 17 1939	{ 517		49	1768
Hydrocarbon-burner for furnaces	J. B. Deeds	412,481	Oct. 8 1028	{ 267		49	298
Hydrocarbon-engine	M. Aldrich	411,914	Oct. 1 300	{ 51		49	41
Hydrocarbon generator and burner	L. S. Calder	413,169	Oct. 22 2059	{ 535		49	421
Hydrocarbon oil. Apparatus for burning	W. S. Bacon and S. L. Holsinger	413,473	Oct. 22 2502	{ 648		49	506
Hydrocarbon or gas engine	J. Charter	415,446	Nov. 19 1044	{ 505		49	1128
Hydrocarbons. Burning	J. Schindler	417,342	Dec. 17 1768	{ 475		49	1735
Hydrocarbons from offensive odor. Freeing malodorous	E. D. Kendall	413,187	Oct. 22 3079	{ 541		49	425
Hydrostatic presses. Actuating	J. H. Vaile	416,020	Nov. 26 2840	{ 743		49	1317
Hydrostatic presses. Apparatus for actuating	J. H. Vaile	415,750	Nov. 26 2838	{ 646		49	1233
Hygienic chair	A. F. Caldwell	416,564	Dec. 3 618	{ 162		49	1403
Ice-cream freezer	F. P. Chandler	416,567	Dec. 3 621	{ 169		49	1493
Ice-cutting machine	D. A. Haines	418,351	Dec. 31 3333	{ 870		49	2053
Ice-cutting machine. Electrically operated	H. F. Kerns	412,925	Oct. 15 1084	{ 440		49	341
Ice-plows. Adjustable clevis-arm for	H. F. Dornell	412,483	Oct. 8 1032	{ 269		49	299
Ice tongs	J. Sosenbamer	414,338	Nov. 5 235	{ 59		49	726
Igniting and extinguishing apparatus	H. A. Chapin	414,941	Nov. 12 1161	{ 303		49	975
Incandescent lights. Ceiling block for	Bergmann	412,361	Oct. 8 853	{ 223		49	173
Incubator	S. C. Campbell	416,774	Dec. 10 965	{ 250		49	1560
Incubators. Heat-regulator for	W. P. Shepard	412,675	Oct. 8 1330	{ 344		49	296
Index-cutter	W. Braidwood	417,536	Dec. 17 3093	{ 556		49	1795
Index-pamphlet and filo. Combined	R. R. Williams	412,147	Oct. 1 529	{ 140		49	107

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & Co.	Vol.	Page.
Joint:							
See Box corner-joint.	Railway-joint.						
Furniture-joint.	Railway-rail joint.						
Pipe-joint.	Slip joint.						
Rail-joint.	Top-prop joint.						
Joint-crowning machine	C. B. Woodruff	413,007	Oct. 15	1799	471	49	364
Joint-hanger	W. Reuschel	414,169	Oct. 29	3537	993	49	737
Jolie and Jolie-mold	T. C. Budd	415,443	Nov. 19	1938	504	49	1136
Journal-bearing	J. T. Murray	413,061	Oct. 15	1865	498	49	365
Journal-bearing	W. S. Scates	417,540	Dec. 17	1764	474	49	1735
Journal-bearing. Self-lubricating	W. L. Haldy	418,251	Oct. 8	685	181	49	142
Journal-box	P. H. Grimm	418,123	Dec. 31	3975	779	49	1973
Journal-box and bearing	J. F. Morell	415,547	Nov. 19	3119	551	49	1164
Journal-box for sheave-wheels	W. Phoenix	415,791	Nov. 26	2494	651	49	1245
Journal-box lining	C. H. Koch	416,337	Dec. 3	373	49	1423	
Journal-box. Self-rolling	W. O. Smith	417,887	Dec. 24	2603	685	49	1803
Journal. Vehicle	T. N. Sabers	413,995	Oct. 15	1772	465	49	360
Journals. Machine for forming axle	J. R. Jones	413,636	Oct. 8	1251	326	49	352
Juice-extractor	J. W. Hyatt	416,106	Nov. 26	2998	779	49	1346
Kaleidoscope	C. C. Clawson	416,092	Nov. 26	2960	772	49	1341
Keir	W. Mather	415,545	Nov. 19	2116	550	49	1163
Kettle	C. W. Pierce	418,340	Dec. 31	3310	865	49	2049
Kettle for calcining gypsum	W. R. Walton	414,850	Nov. 13	1027	265	49	949
Kettles, &c. Sheet-metal car for	L. C. Davidson	413,496	Oct. 22	2339	637	49	513
Key:	F. W. Judd	413,856	Oct. 29	3059	797	49	625
See Clock or watch key. Watch-key.							
Telegraph-key.							
Key	J. F. Mehren	415,412	Nov. 19	1889	492	49	1117
Key-holder	C. E. Van Norman	413,421	Oct. 22	2452	632	49	493
Key-hole guard	J. B. Bennett	418,367	Dec. 31	3192	836	49	2025
Key-hole guard	C. D. Williams	412,807	Oct. 15	1596	416	49	325
Key-seat and key-cutting machine. Combined	G. W. Marshall	416,479	Dec. 3	479	139	49	1466
Key-seating machine.	T. C. Dill	413,623	Oct. 1	357	92	49	72
Kiln:							
See Brick-kiln.	Limetkiln.						
Kindergarten-table	M. Bradley	418,437	Dec. 31	3439	904	49	2069
King-bolt connection for vehicles	J. P. Wechsberg	413,990	Oct. 29	3263	832	49	869
Kit.	W. E. Bond	412,160	Oct. 1	545	143	49	110
Kitchen-cabinet.	J. N. Ball	413,842	Oct. 29	3037	791	49	621
Knapsack.	C. D. Weldon	417,301	Dec. 17	1707	459	49	1724
Knives:							
See Finger-nail knife. Pocket-knife.							
Gage-knife.							
Knife	C. F. Busb	417,539	Dec. 17	2098	558	49	1796
Knife	R. J. Christy	414,973	Nov. 12	1313	315	49	985
Knife tool	M. V. Belger and A. Eberhart	416,547	Dec. 3	593	161	49	1488
Knit fabric and knitting the same. Widened tubular.	C. H. Young	412,057	Oct. 1	403	104	49	81
Knit fabric and knitting the same. Widened tubular.	C. H. Young	412,058	Oct. 1	404	104	49	81
Knit garment	W. Bramley	413,221	Oct. 22	2132	554	49	435
Knit shirt	L. N. D. Williams	412,054	Oct. 1	397	102	49	80
Knitted goods. Machine for uniting	J. W. Hart and S. B. Wilkins	415,779	Nov. 26	2477	647	49	1341
Knitted pantaloons	J. Holmes	416,517	Dec. 3	698	189	49	1509
Knitted shirt	J. Axford	416,317	Dec. 3	348	64	49	1416
Knitted shirt	J. Holmes	416,616	Dec. 3	698	188	49	1509
Knitted supporter	L. N. D. Williams	412,055	Oct. 1	398	103	49	80
Knitted under-garment	M. Orr	416,615	Dec. 3	697	188	49	1509
Knitted undershirt	G. E. Nye	413,784	Oct. 15	1483	367	49	304
Knitting machine	F. Wilcomb	412,577	Oct. 8	1158	364	49	235
Knitting machine	G. E. Ellis	412,324	Oct. 8	793	396	49	162
Knitting machine. Circular	J. A. Burleigh	413,597	Oct. 22	3686	698	49	543
Knitting machine. Circular	C. F. Carr	417,382	Dec. 17	1837	492	49	1747
Knitting machine. Circular	E. C. Corvill and E. S. Cram	414,105	Oct. 29	3437	894	49	707
Knitting machine. Circular	M. J. Dinneen	415,834	Nov. 26	2554	667	49	1556
Knitting machine. Circular	W. D. Huse and C. F. Carr	413,142	Oct. 15	2907	723	49	495
Knitting machine. Circular	W. H. Kelly	414,863	Nov. 12	1039	268	49	932
Knitting machine. Circular	E. Lippitt	415,917	Nov. 26	2676	701	49	1283
Knitting machine. Circular	G. E. Nye	413,655	Oct. 8	1280	337	49	360
Knitting machine. Circular	W. H. Stewart	413,161	Oct. 15	1935	506	49	340
Knitting machine. Circular rib	J. H. Cooper and G. Blunt	412,600	Oct. 8	1302	316	49	243
Knitting-machine feeding device. Circular	G. D. Mayo	414,865	Nov. 19	1944	523	49	952
Knitting machine. Straight	H. Bieger	414,006	Oct. 29	3192	839	49	676
Knitting machine. Straight	J. Seyfert and H. Donner	417,514	Dec. 17	3041	544	49	1787
Knitting machine. Straight-frame	S. N. Goodman	412,485	Oct. 8	1072	272	49	312
Knitting-machine thread-guiding device	H. Curtin	412,475	Oct. 8	1019	265	49	207
Knitting-machine tufting attachment	J. D. Partello and J. F. Jackson	416,421	Dec. 3	399	106	49	1449
Knitting machine. Warp	J. Berry	417,221	Dec. 17	1589	430	49	1701
Knitting-machine yarn-feeding device	J. Bradley	414,487	Nov. 5	470	119	49	119
Knitting-machines. Automatic stop-motion for	J. M. Stevens	413,741	Oct. 29	2897	734	49	396
Knitting-machines. Cam-adjusting mechanism for circular	G. E. Nye	416,488	Dec. 3	498	135	49	1469

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Knitting-machines. Plush-burr for.....	G. W. Cummings	416,256	Dec. 3	151	41	49	1398
Knob attachment	E. S. Winchester	416,310	Dec. 3	239	62	49	1416
Knob attachment	E. S. Winchester	416,311	Dec. 3	240	62	49	1416
Krant-cutter	J. L. Parker	415,682	Nov. 19	2534	60	49	1305
Label-attaching machine	J. C. McBean	413,787	Oct. 29	2902	773	49	606
Label-attaching machine	S. J. Parker and A. Ross	414,991	Nov. 12	1233	392	49	990
Label or stamp protector	G. Frankenberger	414,295	Nov. 5	43	9	49	746
Labels. Applying detachable	B. Glick	416,132	Dec. 24	2974	779	49	1073
Lace-exhibiting rack	C. H. Kroeger	413,605	Oct. 22	2701	702	49	546
Lace-fastener	M. N. Badley	415,433	Nov. 19	1924	500	49	1123
Lacing-books for shoes. Manufacture of	H. H. Cummings	414,684	Nov. 12	753	203	49	902
Ladder. Coupling-step	G. A. Miller	416,175	Dec. 3	41	13	49	756
Ladder. Extension	W. H. Mitchell	409,046	Dec. 24	2842	749	49	1360
Ladder. Fire	H. T. Hayes	412,705	Oct. 8	1368	336	49	275
Ladder. Fire	C. B. Little	415,873	Nov. 26	2607	662	49	1267
Ladder. Fireman's	W. Mueller	414,537	Nov. 5	90	21	49	756
Ladder-shoe	J. S. McIlhenny	412,190	Oct. 1	603	157	49	121
Ladder. Universal	T. J. Hubbard	416,622	Dec. 3	706	191	49	1511
Ladders. Tree attachment for support of	C. E. Kidder	416,226	Dec. 13	108	301	49	1390
Ladle-carrier	J. Kitzinger	417,491	Dec. 17	2004	535	49	1789
Lamp	H. L. Clark	414,783	Oct. 12	276	49	49	849
Lamp	M. S. Drake	417,551	Dec. 17	2111	561	49	1799
Lamp	L. Henkle	412,181	Oct. 1	582	132	49	117
Lamp	E. B. Regna	416,183	Dec. 3	51	16	49	1379
Lamp	G. W. Wilder	417,967	Dec. 24	2723	716	49	1285
Lamp	G. W. Woodward	417,630	Dec. 17	2204	587	49	1818
Lamp	G. W. Woodward	417,621	Dec. 17	2205	5-7	49	1818
Lamp adjuster. Hanging	W. F. Bradner	415,896	Nov. 26	2643	692	49	1275
Lamp. Arc	F. G. Chapman and F. M. Dearing	414,141	Oct. 29	3492	907	49	718
Lamp. Arc	C. E. Scribner	415,571	Nov. 19	2165	565	49	1173
Lamp. Arc	C. E. Scribner	415,572	Nov. 19	2167	566	49	1173
Lamp. Arc	F. W. R. Seifert	414,130	Oct. 29	3471	902	49	714
Lamp. Arc	F. F. Shawhan	417,516	Dec. 17	2044	545	49	1798
Lamp. Argand	P. Rhind	416,237	Dec. 3	123	34	49	1392
Lamp. Blow-pipe	W. P. Butler	415,633	Nov. 19	2231	5-1	49	1185
Lamp-burner	S. Adams	415,794	Oct. 29	2939	243	49	584
Lamp-burner	J. Nickels	414,166	Oct. 29	3333	922	49	727
Lamp-burner	F. A. Taber	415,952	Nov. 26	2746	717	49	1288
Lamp-burner	T. Wall	416,478	Dec. 31	3316	919	49	2091
Lamp. Car	K. Ritz	416,179	Dec. 3	35	19	49	1376
Lamp. Carbureting	A. Kitson	415,914	Nov. 26	2669	700	49	1281
Lamp. Carbureting	J. W. Tallmadge	412,348	Oct. 8	834	218	49	170
Lamp. Central-draft	Z. Davis	415,592	Nov. 19	2049	532	49	1149
Lamp. Central-draft	415,594	Dec. 31	3324	936	909	49	2091
Lamp. Central-draft	J. Jauch	413,958	Oct. 15	1729	452	49	350
Lamp-chimney holder	T. Wall	416,479	Dec. 31	3516	920	49	2091
Lamp-chimney jacket	T. McGowan	412,406	Oct. 8	913	239	49	185
Lamp. Coal-oil	G. Roberts	415,532	Dec. 31	3608	941	49	2111
Lamp. Ejector oil-vapor	P. Tarbutt	416,652	Dec. 3	752	203	49	1519
Lamp. Electric	J. T. Van Gestel	413,636	Oct. 22	2743	711	49	555
Lamp. Electric-re	J. H. Bunnell	416,444	Dec. 31	3467	907	49	2091
Lamp. Extinguisher. Automatic	L. B. Mellin	415,929	Oct. 15	1691	441	49	342
Lamp. Extinguishing apparatus	J. Miller	413,969	Oct. 15	1742	455	49	353
Lamp for miners. Electric safety	T. Coad	413,708	Oct. 29	2954	745	49	585
Lamp globe and reflector. Incandescent	T. G. Hawkes	412,069	Oct. 1	446	116	49	90
Lamp-hanger. Adjustable	W. F. Bradner	415,897	Nov. 26	2643	693	49	1275
Lamp. Hanging	W. C. Homan	412,502	Oct. 8	1060	276	49	214
Lamp. Hanging	G. W. Woodward	413,469	Oct. 22	2497	647	49	505
Lamp. Hanging device. Electric-arc	J. McLaughlin	416,447	Dec. 10	3038	279	49	1551
Lamp-head-light. Electric-arc	R. T. McDonald and J. Cain	415,252	Nov. 19	1640	423	49	1069
Lamp-holding attachment. Arc	T. H. Brady	413,220	Oct. 22	2131	554	49	435
Lamp. Incandescent	E. F. Gennert	413,442	Oct. 22	2159	638	49	496
Lamp. Incandescent	J. Incandescent	413,335	Nov. 19	1777	402	49	1096
Lamp. Incandescent electric	L. H. Leber	416,632	Dec. 3	752	186	49	1514
Lamp. Incandescent electric	J. W. Packard	417,729	Dec. 24	2464	649	49	1877
Lamp. Incandescent electric	G. W. Wilson	414,741	Nov. 12	802	223	49	918
Lamp. Incandescent electric	G. W. Wilson	414,742	Nov. 12	803	223	49	918
Lamp. Incandescent gas	H. J. Bell	415,648	Nov. 19	2043	562	49	1168
Lamp-lighter	M. Smith	412,425	Oct. 8	941	247	49	191
Lamp. Magnesium flash	H. G. Piffard	413,547	Oct. 22	2604	675	49	526
Lamp or analogous structure	A. French	416,219	Dec. 3	97	28	49	1388
Lamp or burner. Incandescent gas	W. L. Stewart	415,514	Dec. 3	542	147	49	1277
Lamp. Pocket	E. B. Koopman	414,638	Oct. 29	3378	878	49	695
Lamp. Regenerative-burner	J. F. E. W. Schmidt	415,067	Nov. 12	1343	350	49	1012
Lamp. Safety	J. Davidson and J. Taylor	414,377	Nov. 5	288	73	49	796
Lamp. Self-regulating	V. Di Marzo	416,113	Dec. 24	2956	775	49	1970
Lamp. Self-regulating	V. Di Marzo	416,114	Dec. 24	2958	776	49	1970
Lamp-shade	W. S. Berg	412,828	Oct. 15	1041	403	49	315
Lamp-shade	415,692	Nov. 19	2200	576	49	1191	
Lamp-socket. Incandescent	P. J. Chassagne	416,601	Nov. 26	2649	735	49	1247
Lamp-socket. Incandescent	O. P. Loomis	412,962	Oct. 15	1733	453	49	351
Lamp-socket. Incandescent	J. W. Packard	417,757	Dec. 24	2461	649	49	1876
Lamp-socket. Incandescent	J. W. Packard	417,758	Dec. 24	2462	649	49	1876
Lamp-socket. Incandescent	S. Rodman, Jr	415,928	Nov. 12	1132	295	49	970
Lamp-socket. Incandescent-electric	F. Thone	418,626	Dec. 31	3442	900	49	2076
Lamp. Spray	A. Shedlock	415,398	Nov. 19	1867	486	49	1112
Lamp-suspending device. Electric	F. H. Corthell	416,255	Dec. 3	149	41	49	1398
Lamp-suspending device. Electric	E. C. Dawson	416,447	Dec. 3	440	120	49	1458

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. &c.	Vol.	Page.
Lamp-wick raiser	L. Henkle	415,108	Nov. 12	1396	364	49	1093
Lamp-wick raiser	A. Taplin	415,400	Nov. 19	1871	487	49	1113
Lamps. Adjustable support for swinging	L. F. Jordan	416,308	Dec. 3	334	84, 85	49	1432
Lamps. Apparatus for distributing lighting fluids to	P. Nolan and J. Anderson	416,292	Dec. 3	115	33	49	1391
Lamps. Beaded fillet for street	R. Pattison	417,942	Oct. 22	2162	563	49	1411
Lamps. Construction of gas	D. W. Sugg	418,324	Oct. 31	3290	800	49	2045
Lamps. Cut-out for incandescent	T. D. Bottomo	414,792	Nov. 12	930	241	49	931
Lamps, &c. Device for lighting	G. H. Wessling	415,299	Dec. 31	3711	969	49	2130
Lamps. Electric igniting device for	M. Carranza and J. M. Pino	412,464	Oct. 8	988	359	49	201
Lamps. Fitting and hoisting-gear for electric	W. B. Sayers and W. H. Sturge	412,713	Oct. 8	1398	339 } 360 }	49	277
Lamps. Glove-protector for arc	G. C. Aamus	413,911	Oct. 15	1898	473	49	366
Lamps. Spark-arrester for electric	J. E. Farmer	415,625	Nov. 19	2225	549	49	1190
Lamps. Street-lamp post for electric	F. U. Adams	414,933	Nov. 12	1146	300	49	973
Lamps. Suspension device for	D. Carney	414,940	Nov. 12	1159	302	49	975
Lamps. Suspension device for hanging	L. F. Orswood	413,749	Oct. 29	2953	170	49	604
Lamps. Wick-raiser for central-draft	J. G. Miller	414,948	Nov. 12	1171	305	49	977
Lance	W. Lorens	417,433	Dec. 17	1900	369	49	1702
Lanolin powder	J. Quaglio	415,351	Nov. 19	1808	.....	49	1100
Lantern	A. L. Baron	415,693	Nov. 26	3353	615	49	1217
Lantern	A. H. and J. T. Crawford	417,000	Dec. 10	1345	340	49	1625
Lantern	N. M. Crawford	415,388	Nov. 19	1796	481	49	384
Lantern	C. J. Higgins	417,026	Dec. 10	1396	354	49	1634
Lantern	F. D. Spear	413,464	Oct. 22	3490	646	49	504
Lantern-gage	E. D. Scribner	414,394	Nov. 5	638	166	49	867
Lantern-holder	W. A. Lattimore	415,730	Nov. 26	3396	634	49	1225
Lantern. Signal	F. P. Copper and A. Balr	417,705	Dec. 24	2130	615	49	1851
Lantern. Signal	J. A. Hyde	415,205	Nov. 19	1579	406	49	1057
Lantern. Signal	W. P. Myer	416,799	Dec. 10	964	261	49	1567
Lantern. Signal	C. N. Wilson	416,850	Dec. 10	976	580	49	1582
Lantern. Signal	A. F. Prahm	413,825	Oct. 15	1640	628	49	352
Lantern. Signal	G. W. Smith	413,577	Oct. 22	2650	684	49	536
Lantern. Signal	G. C. and W. A. Westervelt	412,145	Oct. 1	525	138	49	106
Lantern. Tubular	C. L. Lockwood	418,407	Dec. 24	2531	747	49	1948
Lantern. Tubular	W. McArthur	412,360	Oct. 8	739	193	49	152
Lantern. Tubular	W. McArthur	412,287	Oct. 8	740	193	49	152
Lantern. Tubular	W. C. Stewart	411,937	Oct. 1	232	59	49	47
Last-die	C. L. Wright	417,661	Dec. 17	2361	600	49	1828
Last-hoek fastener	M. L. Riehl	417,850	Dec. 17	2396	480	49	1738
Last-die	D. F. Lapauha	414,553	Nov. 5	567	146	49	354
Lasting-jack and support	S. Clark	412,947	Oct. 15	1713	448	49	346
Lasting-machine	J. P., A., F., and A. Cave	412,467	Oct. 8	994	260 }	49	202
Latch	E. F. Barrows	417,970	Dec. 24	2732	218 }	49	1928
Latch	W. A. Walker	413,422	Oct. 22	2433	632	49	493
Latch	E. S. Winchester	416,308	Dec. 3	326	61	49	1416
Latch	E. S. Winchester	416,309	Dec. 3	327	62	49	1416
Latch	E. S. Winchester	416,312	Dec. 3	341	73	49	1416
Latch and lock case	A. Arens	416,248	Dec. 3	137	38	49	1395
Latch and lock combined	T. A. Anherlin	414,482	Nov. 5	464	117 }	49	834
Latch-case. Sheet metal	H. E. Russell, Jr.	412,418	Oct. 8	935	185	49	190
Latch for sliding doors	W. H. Thomas	416,092	Nov. 26	2945	766	49	1337
Latch. Gate	S. Corrothers	417,408	Dec. 17	1867	500	49	1753
Latch. Gate	C. N. Ellis	411,955	Oct. 1	390	67	49	53
Lath. Satchel	L. Oswald	415,456	Oct. 22	2479	644	49	502
Lath. Metal	G. M. Edwards	412,917	Oct. 15	1675	437	49	339
Lathing. Metallo.	G. Hayes	416,165	Dec. 3	26	9	49	1374
Lathe attachment for turning wrist-pins	P. F. Cole	414,897	Nov. 12	1099	382 }	49	962
Lathe-beds. Machine for grinding	A. Webster	417,615	Dec. 17	2198	385 }	49	1817
Lathe-dog	G. J. Engert	413,392	Oct. 22	2398	622	49	445
Lathe-dog	H. E. Holmes	415,464	Dec. 31	3495	914	49	2086
Lathe-dust-trap	F. S. Peck	412,608	Oct. 29	2702	702	49	546
Lathe for winding armatures	W. S. Belding	415,805	Nov. 26	3514	536	49	1948
Lathe. Metal-turning	V. F. Prentice	413,362	Dec. 31	3374	880	49	3061
Lathe-tool	E. R. Markham	412,560	Oct. 29	3205	837	49	659
Lathe-tool	J. J. McLeod	412,608	Oct. 1	374	96	49	46
Lathe-tool-rest	W. L. Ramsey	415,444	Dec. 24	740	298	49	1517
Lathes. Adjustable cone-center for	J. Knight	412,926	Oct. 15	1686	440	49	341
Lathes. Counter-rest for	J. J. Peard	415,219	Nov. 19	1596	411	49	1061
Lathes. Tail-stock spindle	A. Webster	412,439	Oct. 8	955	251	49	194
Lathes. Tool-feeding mechanism for	F. W. Taylor	417,527	Dec. 17	2069	252 }	49	1793
Lathes. Tool post for	D. Williamson	414,788	Nov. 12	924	239	49	930
Lathes. Tool rest	F. W. Brooks	413,488	Oct. 22	2527	654	49	511
Lawn-rake	J. E. Rake	415,844	Nov. 26	740	679	49	1359
Lawn-sprinkler	D. A. Hoyt	418,181	Dec. 31	3071	906	49	3801
Lawn-tennis-net support	F. W. Taylor	415,225	Nov. 26	2542	665	49	1254
Laths and base hullion from slag. Apparatus for separating	W. B. Deveraux	417,315	Dec. 17	1725	463	49	1728
Lead and base hullion from slag, mattes, and speiss. Apparatus for separating	W. B. Deveraux	417,314	Dec. 17	1722	463	49	1727
Lead bullion from matte and slag. Separating	N. R. Wilson	416,086	Nov. 26	2953	769 }	49	1339
Lead chloride. Making	W. Shapleigh	412,800	Oct. 15	1593	392 }	49	308
Lead. Manufacture of white	T. D. Bottomo	414,933	Nov. 12	1149	.....	49	974
Lead. White	J. F. F. Löwe	417,434	Dec. 17	1906	.....	49	1762
Lead. White	R. W. E. MacIvor	413,528	Oct. 22	2553	669	49	522
Leaf-turner	J. Miller	415,051	Nov. 12	1321	345 }	49	1007
Leak-stopper for vessels	W. Winchester	417,894	Dec. 24	2616	689	49	1905
Leather-channelling machine	W. M. Wright and H. J. Rodgers	417,459	Dec. 17	1940	517 }	49	1768
Leather-cutting machine	J. G. McCartor	417,268	Dec. 17	1656	518 }	49	1715

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Leather. Machine for the preparation of	C. Klinik, F. Pinkowski, and A. Gross.	417,251	Dec. 17	1629	441	49	1710
Leather. Machine for treating	M. N. Howard	416,918	Dec. 10	1142	312	49	1603
Leather-skiving tool	H. H. Arnold	412,063	Oct. 1	411	313	49	83
Leather-splitting machine	J. A. Safford	412,063	Oct. 15	1924	563	49	389
Leather-stretching machine	B. P. Bradford	414,283	Nov. 5	153	38, 39	49	769
Leather-stripping machine	W. H. Hoople	412,563	Oct. 8	1062	277	49	214
Leg. Artificial	P. C. Porter	417,583	Dec. 17	2153	573	49	1808
Lemon-juice extractor	J. P. Manny	415,045	Nov. 12	1318	343	49	1006
Lemon-juice extractor	J. P. Manny	415,049	Nov. 12	1319	344	49	1007
Lemon-squeezer	C. A. Collins	414,499	Nov. 5	457	122	49	837
Lemon-squeezer	N. Levy	413,725	Oct. 29	2574	749	49	589
Letter-box	W. Cook	412,958	Oct. 29	3173	829	49	652
Letter-box	W. O. Taylor	415,746	Nov. 26	2429	635	49	1222
Letter-boxes. Electric-signal system for	G. L. B. Rousselle	418,392	Dec. 31	2926	767	49	2044
Letter-opener	W. R. Morse	414,886	Nov. 12	1084	278	49	959
Letter or number for signs	D. N. Lanyon	411,813	Oct. 1	55	16	49	14
Letter-press	F. Caste	418,398	Dec. 31	3397	686	49	2067
Levee or ditching machine	A. Wilfert	416,084	Nov. 26	2948	768	49	1338
Level. Spirit	J. Brakeley	414,372	Nov. 5	282	71	49	795
Leveling apparatus	A. E. D. F. de Villepigue	417,236	Dec. 17	1605	435	49	1705
Leveling-instrument	C. T. Straus	412,163	Oct. 15	1942	507	49	302
Life-boat	W. Luth	417,195	Dec. 10	1548	430	49	1654
Life-boat	P. F. Schenck	412,982	Oct. 15	1757	421	49	852
Life-boats. Rowing apparatus for	P. F. Schenck	415,474	Nov. 19	1995	517	49	1159
Life-saving apparatus	O. Rosendahl	412,417	Oct. 8	933	344	49	189
Lifter:							
See Lid-lifter. Pot or lid lifter.							
Pail-lifter. Transom-lifter.							
Plate-lifter.							
Lifting and compressing device	S. B. Minnich	416,733	Dec. 10	872	235	49	1550
Lifting-jack	J. Barrett, (Reissue)	11,038	Nov. 5	757	195	49	889
Lifting-jack	J. Barrett, (Reissue)	11,051	Dec. 31	3407	993	49	2150
Lifting-jack	F. B. Brock	415,703	Nov. 26	2369	618	49	1220
Lifting-jack	J. W. Hawkins	413,063	Oct. 29	2752	723	49	572
Lifting-jack	J. J. Joyce	416,531	Dec. 3	721	195	49	1514
Lifting-jack	L. Meeker	411,807	Oct. 1	179	46	49	36
Lifting-jack	E. I. Nichols	413,864	Oct. 29	3070	800	49	629
Lifting-jack	C. Tindall	415,657	Nov. 19	2343	611	49	1207
Ligature-holder	A. H. Buckmaster	412,371	Dec. 31	3196	637	49	2025
Light:							
See Arc light. Lamp head-light.							
Head-light. Scuttle-light.							
Lighting device	L. A. Roberts	414,889	Nov. 12	1067	279	49	960
Lighting-arrester	E. Thomson	418,249	Dec. 31	3168	830	49	2020
Lighting-arrester	P. Winsor	417,695	Dec. 17	2315	611	49	1339
Lighting-arrester	P. Winsor and A. Wurts	417,694	Dec. 17	2313	611	49	1838
Lighting-arrester	C. Wirt	414,356	Nov. 5	259	65	49	790
Lighting-arrester	C. I. Young	414,624	Nov. 5	685	178	49	876
Lime. Preserving	W. W. Frantz	412,347	Oct. 8	680	.....	49	141
Limekiln	E. T. Warner	414,350	Nov. 5	249	63	49	789
Limekiln. Magazine	D. G. Ormsby	414,437	Nov. 5	293	99	49	818
Limekiln	O. F. Brown	415,620	Nov. 12	1276	.....	49	998
Limekiln	G. Evert	417,011	Dec. 10	1929	.....	49	1628
Limekiln	B. C. Gochenouer	414,709	Nov. 12	899	.....	49	925
Limekiln	L. Hilke	416,730	Dec. 10	867	.....	49	1540
Limekiln	H. E. Hoover	416,409	Dec. 3	365	.....	49	1641
Limekiln	J. G. and P. H. Knipper	417,041	Dec. 10	1329	.....	49	1446
Link-lifter	G. Groves	417,623	Dec. 10	1292	353	49	1634
Linenum floor-cloth. Manufacturing	D. N. Melvin	412,379	Oct. 8	728	190	49	150
Lint-machine	J. Wayland	417,613	Dec. 17	2194	584	49	1616
Liquid-cooler	F. X. Kuhn	415,806	Oct. 29	2085	773	49	611
Liquid from vessels. Means for pouring or discharging	W. H. Pike	416,494	Dec. 3	507	138	49	1470
Liquid-meter	B. R. Benner	416,435	Dec. 3	421	114	49	1454
Liquid receptacle	F. W. Wolf	415,428	Nov. 19	1917	499	49	1122
Liquid-releasing device. Coin-operated	L. B. Norcross	416,121	Nov. 26	3020	786	49	1532
Liquids. Apparatus for the sale of	H. Weissenburger	417,348	Dec. 17	1785	460	49	1738
Liquids. Device for retaining and applying	J. L. Wells and D. A. Cohn	416,659	Dec. 3	765	309	49	1522
Liquor cooler and holder. Combined	J. Gordon	415,777	Nov. 26	3474	646	49	1240
Lock:							
See Alarm-lock. Indicator-lock.							
Bolt-lock. Mail-bag lock.							
Can-lock. Nut lock.							
Card-door lock. Padlock.							
Car-seat lock. Percussion-lock.							
Door-lock. Permutation-lock.							
Drawer-lock. Railway-switch lock.							
Electric lock. Scuttle-lock.							
Elevator-lock. Seal lock.							
Grip-lock. Slat lock.							
Grub-lock. Wagon-hody lock.							
Hoop lock. Wagon-seat lock.							
Hoop or truss-rod lock.							
Lock	F. Egge	417,008	Dec. 10	1366	346	49	1629
Lock	O. H. Gilbert	414,518	Nov. 5	515	131	49	845
Lock	E. Hamburjer	415,816	Nov. 26	2526	660	49	1251

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. &c.	Vol.	Page.
Lock	C. L. Lincoln	416,467	Dec. 3	464	196	49	1463
Lock	O. W. Lundholm	411,994	Oct. 1	311	81	49	63
Lock	A. O'Keefe	416,181	Dec. 3	48	15	49	1378
Lock	E. J. O'Keefe	414,720	Nov. 12	834	216	49	912
Lock	E. C. Smith	418,470	Dec. 31	3512	919	49	2090
Lock	C. M. Stiner	413,794	Oct. 29	3973	775	49	696
Lock	W. H. Taylor	412,997	Oct. 15	1785	466	49	361
Lock	W. H. Taylor	415,178	Nov. 12	1538	396	49	1041
Lock-case. Sheet-metal	C. M. Burgess	412,365	Oct. 8	859	224	49	174
Lock-case. Sheet-metal	H. E. Russell, Jr.	412,419	Oct. 8	835	245	49	190
Lock-strike	F. P. Stone	417,453	Dec. 24	2544	670	49	1892
Locking device for door-knobs	E. Hamhuier	413,826	Oct. 29	3018	785	49	617
Locomotive	P. Faithfull and W. Sinopkin	446,734	Dec. 10	862	222	49	1548
Locomotive	J. Sharkey	417,546	Dec. 17	8157	574	49	1860
Locomotive-boiler	J. Sharkey	416,958	Dec. 10	1192	325	49	1613
Locomotive-brake	H. D. Dunbar	413,500	Oct. 29	2545	658	49	515
Locomotive-brake	T. H. Haberkorn	413,354	Oct. 29	2178	566	49	444
Locomotive-exhaust-pipe	J. S. Bigelow	413,355	Oct. 29	2389	616	49	453
Locomotive fire-box	W. Malm	417,059	Dec. 10	1349	370	49	1845
Locomotive for tramways. Hot-water.	A. L. Rich	417,055	Dec. 17	2094	540	49	1784
Locomotive journal-box	E. Mesake	4 4 982	Nov. 12	1224	319	49	967
Locomotive-pilot	E. G. Phillips	413,305	Oct. 22	2367	596	49	461
Locomotive reversing-lever	G. W. Emerson	402,608	Oct. 8	1912	561	49	517
Locomotive smoke-stack	E. W. M. Hughes	418,129	Dec. 31	3072	806	49	2001
Locomotive spring-gear	J. T. Heffernan	412,256	Oct. 8	693	183	49	144
Locomotive steam-engine cross-head	J. A. Stiles	416,966	Dec. 10	1119	328	49	1616
Locomotive. Tramway	J. T. Stiles	412,546	Oct. 22	2368	601	49	462
Locomotives. Running-board for	E. W. M. Hughes	418,287	Dec. 31	3223	843	49	2031
Locomotives. Sanding apparatus for	M. D. Jenkins	418,263	Dec. 31	3661	957	49	2130
Locomotor. Electric	J. R. Finney	415,163	Nov. 12	1581	392	49	1038
Log-dogging apparatus	W. J. Perkins	414,944	Nov. 12	1236	323	49	991
Log-loader	W. E. Hill	413,721	Oct. 29	2869	748	49	368
Log-turner	T. S. Wilkin	415,315	Nov. 19	1747	434	49	1000
Long-filler bunches. Machine for making	C. H. Haugk	414,216	Nov. 5	59	13	49	750
Loom	E. H. Graham	417,030	Dec. 10	1286	351	49	1633
Loom	J. F. Hagenmacher	413,299	Oct. 22	2257	586	49	459
Loom	G. F. Hutchins	413,369	Oct. 22	2366	613	49	479
Loom	C. A. Littlefield	414,964	Nov. 12	1042	269	49	952
Loom	G. A. Sawyer and M. M. Labrus	413,563	Oct. 22	2631	683	49	532
Loom	H. Wyman	412,629	Oct. 8	1340	349	49	270
Loom for weaving bordered fabrics	J. Goss and W. Varley	414,523	Nov. 5	522	133	49	846
Loom for weaving double pile fabrics	M. Leach, J. Heaton, and J. Bentley	414,646	Nov. 5	716	186	49	882
Loom for weaving double pile fabrics	M. Leach, J. Heaton, and J. Bentley	414,647	Nov. 5	719	186	49	882
Loom for weaving pile fabrics	A. F. Firth	413,440	Oct. 29	2456	637	49	497
Loom for weaving with short wefts	I. Lindsay	415,733	Nov. 26	2396	626	49	1236
Loom jacquard mechanism	F. L. Carnell	417,903	Dec. 24	4367	603	49	1906
Loom let-off mechanism	G. F. Hutchins	417,033	Dec. 10	1306	356	49	1036
Loom let-off motion	J. Wilkinson	416,025	Nov. 26	2477	745	49	1318
Loom-lever	H. Wyman and A. A. Gordon	414,822	Nov. 12	1029	265	49	949
Loom-picker	C. Chippendale	417,465	Dec. 17	2397	601	49	1830
Loom picker-check	E. Whitehouse	415,733	Nov. 26	2445	638	49	1235
Loom picker-stick check	E. Brick	416,665	Dec. 3	773	211	49	1523
Loom picker-stick	L. K. Bryant	415,810	Nov. 26	2520	658	49	1250
Loom picking mechanism	J. T. Meats	414,652	Nov. 5	728	188	49	884
Loom positive shuttle-motion	S. H. Strowbridge	417,057	Dec. 17	2398	609	49	1836
Loom shedding mechanism	T. Bromley, Jr.	418,349	Dec. 31	3329	869	49	2053
Loom shedding mechanism	G. W. Stafford	415,696	Nov. 19	2342	610	49	1207
Loom shedding mechanism	G. W. Stafford and S. D. Barrett	417,321	Dec. 17	2053	547	49	1789
Loom-shuttle	G. W. Stafford and C. H. Poland	414,600	Nov. 5	617	168	49	819
Loom shuttle-binding device	E. Briggs	415,792	Nov. 26	2398	616	49	1230
Loom shuttle-motion	J. Cowgill	417,312	Dec. 17	1719	462	49	1737
Loom shuttle-motion	E. H. Ballou	416,543	Dec. 3	586	160	49	1486
Loom shuttle-motion	T. Murphy and J. W. Broadhead	415,579	Nov. 26	2617	685	49	1260
Loom-shuttle tension-regulating device	J. P. and H. Kelly	417,227	Dec. 24	2519	665	49	1916
Loom-shuttles. Tension-regulating device for	H. C. Liversedge	412,195	Oct. 22	2092	544	49	437
Loom spool-holding frame	O. W. Schaum	412,421	Oct. 8	937	246	49	190
Loom stopping and brake-operating mechanism	G. F. Hutchins	416,025	Dec. 3	709	192	49	1512
Loom stopping mechanism	W. Beck and H. Grathen	414,254	Dec. 17	1031	286	49	950
Loom take-up mechanism	C. B. Rumsey	416,347	Dec. 3	292	77	49	1427
Loom take-up mechanism	A. S. Warner and A. L. Skinner	413,155	Oct. 15	2028	528	49	408
Loom-temple	J. G. Avery	416,709	Dec. 10	835	228	49	1544
Loom-temple	A. Lehman	415,041	Nov. 12	1311	341	49	819
Loom-temple	C. A. Littlefield	414,772	Nov. 12	1331	374	49	1049
Loom-temple	O. Piper	414,657	Nov. 5	734	190	49	885
Loom-temple	T. Sullivan	416,692	Dec. 3	806	220	49	1530
Loom tug-strap holder	A. E. Bray	413,018	Oct. 15	1854	477	49	369
Looms. Mechanism for opening drop shuttle-boxes in	E. Barton	414,368	Nov. 5	274	69	49	793
Looms. Pile-cutting mechanism for double-pile fabric	A. C. Bachman	414,670	Nov. 12	763	197	49	899
Looms. Reed-protector mechanism for fast reed	J. Jucker	416,167	Dec. 3	99	9, 10	49	1375
Looping-hooks. Needle-threading attachment for	J. R. Gourd	418,613	Dec. 31	3729	974	49	2134
Lounge	H. Kaufmann	412,510	Oct. 8	1071	290	49	217
Low-water alarm	V. W. Blanchard	413,599	Oct. 29	3136	816	49	640
Low-water alarm	F. H. Fells	417,675	Dec. 17	2826	694	49	1943
Low-water alarm	W. Hardwick	418,020	Dec. 24	2809	742	49	1943
Low-water alarm	W. I. Page	414,900	Nov. 12	1231	321	49	889
Low-water alarm	H. Sims	417,517	Dec. 17	2047	545	49	1788
Low-water alarm	D. C. Walter	412,652	Oct. 1	392	101	49	79

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. G.	Vol.	Page.
Lowering articles and check for speed. Apparatus for automatically	A. Evrard	416,159	Dec. 3	17	6	49	1372
Lubricating-cup	J. H. Shephard	412,306	Oct. 1	612	159	49	123
Lubricator.							
See Automatic lubricator.							
Polley-lubricator.							
Shaft-lubricator.							
Sight-feed lubricator.							
Steam-engine lubricator.							
Hydraulic-cylinder lubricator.							
Lubricator.	B. B. Eldred and K. B. Rhelm	412,077	Oct. 1	431	112	49	47
Lubricator.	C. B. Hodges	418,131	Dec. 24	2990	784	49	1976
Lubricator.	J. A. Holmes	418,410	Dec. 31	3413	892	49	2070
Lubricator.	E. McCoy and C. B. Hodges	418,139	Dec. 24	3001	786	49	1978
Lubricator.	G. McNeil	418,214	Dec. 31	3114	816	49	2010
Lubricator.	M. Sholl	413,873	Oct. 29	3090	805	49	632
Lumber-jack	M. Spitzer	414,594	Nov. 5	646	168	49	863
Lumber.	W. K. Markham	417,360	Dec. 17	1645	446	49	1712
Lumber. Process of and apparatus for drying.	G. E. Foss	414,204	Nov. 5	40	9	49	746
Lunch-box. Folding.	M. A. Repelovski	414,585	Nov. 5	623	163	49	864
Machine-brake	J. Wolke	414,469	Nov. 5	445	112	49	830
Magnet. Electro.	D. S. McElroy	413,411	Oct. 22	2422	629	49	491
Magnetic gage for testing the magnetic conductivity of metals.	R. Eickemeyer	413,538	Oct. 22	2315	601	49	470
Mail-sorting table. Reversible	C. A. Kendall	413,947	Oct. 29	3292	836	49	658
Mail-bag	E. F. Davis	416,576	Dec. 3	639	173	49	1497
Mail-bag lock	J. F. Matus	415,624	Oct. 22	2725	706	49	551
Mail-pouch fastener.	W. A. Horral	417,641	Dec. 17	3225	804	49	1924
Mallet.	G. B. Goddard	414,908	Nov. 12	956	248	49	936
Malt-brushing machine	J. M. Case	417,631	Dec. 17	2224	591	49	1822
Malt-machine	J. W. Free and M. A. Barber	413,137	Oct. 15	1909	529	49	403
Malt-stirring machine.	J. W. Free and M. A. Barber	413,138	Oct. 15	2000	521	49	403
Malt-stirring machine.	C. S. Johnson and F. W. and M. A. Barber	417,488	Dec. 17	1994	533	49	1779
Malt-turning apparatus.	J. Engelhardt	412,701	Oct. 8	1356	353	49	973
Maltng-machine.	J. and H. Neth	412,782	Oct. 15	1481	386	49	363
Maltng-machine.	A. Wiggin	416,769	Dec. 10	919	248	49	1558
Mandrel for cast-machines	E. E. Angell	412,381	Oct. 8	1169	306	49	237
Manganese bronze and alloy of commerce	A. H. and E. H. Cowles	415,928	Nov. 20	3252	804	49	1924
Mangle	H. Anderson	412,156	Oct. 1	539	145	49	1256
Mangle and cupboard. Combined	W. Frantz	417,319	Dec. 17	1734	466	49	1729
Manuel. Sheet-metal	J. Graves	417,914	Dec. 24	2640	697	49	1911
Manure-distributor	E. A. Connor	415,315	Oct. 26	3064	537	49	422
Manure. Liquid	J. J. Henschman	415,348	Nov. 19	1659	423	49	364
Map case and holder	I. W. Henderson	414,945	Nov. 12	1167	304	49	977
Marble-cutting machine	M. F. Hatcher	416,164	Dec. 3	24	8	49	1374
Marble. Infusion white and colored	J. M. Daniell	412,021	Oct. 1	355	91	49	71
Marker. Field.	O. W. Gooley	416,525	Dec. 3	607	160	49	1502
Marker. Sliding or claphoard.	J. T. Broden	412,594	Oct. 8	1192	312	49	241
Marlingale-loop	J. Leos	413,670	Oct. 29	2810	731	49	577
Mash-machine	G. Heseck	411,903	Oct. 1	188	48	49	38
Mash-machine and grain-remover	G. Heseck	415,536	Nov. 20	3459	853	49	1346
Mash-tub mechanism	J. H. Eickershoff	413,941	Oct. 15	1850	484	49	374
Mashing-machine	M. Gottfried	412,955	Oct. 15	1731	450	49	344
Mason's hawk	G. and L. A. Kants	416,410	Dec. 3	386	103	49	1446
Mat-support. Automatic.	J. Couch	413,336	Oct. 22	2310	606	49	469
Mat.							
See Door-mat. Wooden mat.							
Mat.	C. W. Trotter	412,209	Dec. 31	3259	817	49	2035
Match-friction surface	J. H. Walder	416,923	Dec. 3	559	152	49	1481
Match-making machine	W. Bond	416,928	Nov. 26	2852	746	49	1319
Match-making machine	E. J. Young	418,103	Dec. 24	2941	770	49	1967
Match-safe	H. D. Winton	414,467	Nov. 5	439	111	49	829
Match safe and box. Combined	H. J. Grifm	414,702	Nov. 12	809	210	49	907
Match-safe and ticket-holder. Combined	S. Wolerstein	413,006	Oct. 15	1798	470	49	364
Match-splints. Machine for cutting and filling	M. Young	415,304	Nov. 26	2714	709	49	1391
Match-sticks. Machine for making	{ O. C. Barber, J. A. Baughman, and } { M. Young. }	416,888	Dec. 10	1100	297	49	1304
Matches. Inflammable composition for.	J. Lutz	418,302	Dec. 31	3099	799	49	2007
Matches. Machine for unfilling	M. Young	415,933	Nov. 26	2712	708	49	1290
Matching-machine	B. G. Luther	413,073	Oct. 15	1890	495	49	362
Matching-machine	B. G. Luther	418,352	Dec. 31	3334	870	49	2053
Matrices. Forming	G. A. Goodson	414,521	Nov. 5	519	131	49	843
Matrix-making machine	G. A. Goodson	414,399	Nov. 5	320	81	49	803
Matrix-making-machine die	G. A. Goodson	414,400	Nov. 5	323	83	49	804
Matrix-making-machine die	G. A. Goodson	414,401	Nov. 5	327	83	49	804
Matrix-making machines. Circuit-closing device for	C. L. Redfield	414,536	Nov. 5	608	152	49	879
Matrix-making machines. Escapement device for	C. L. Redfield	416,742	Dec. 10	883	228	49	1592
Matrix-making machines. Impression device for	C. L. Redfield	416,743	Dec. 10	884	228	49	1592
Matrix-making machines. Variable-feed mechanism for	C. L. Redfield	416,744	Dec. 10	886	229	49	1593
Matrix-making. Type-die for	C. L. Redfield	416,741	Dec. 10	882	228	49	1592
Matrix-plate clamp	C. L. Redfield	419,285	Dec. 31	3252	846	49	2003
Matrix-plate clamp	C. L. Redfield	416,740	Dec. 10	880	228	49	1551
Matrix-plate clamp	G. H. Benedict and P. M. Furlong	411,883	Oct. 1	155	41	49	32

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	De.	Vol.	Page.
Mattress.....	H. C. Farrell.....	414,390	Nov. 5	308	78	49	801
Mattress. Extension.....	E. K. Weber.....	415,023	Nov. 26	308	744	49	1318
Mattress-frames. Means for connecting the ends of.....	I. Chorlton and G. L. Scott.....	415,445	Dec. 31	3409	907	49	3803
Mattress. Metallic or spring.....	I. Chorlton and G. L. Scott.....	418,446	Dec. 31	3471	908	49	2032
Mattress-ticks. Machine for filling.....	G. Lyon.....	414,060	Oct. 29	3336	880	49	697
Meat-bolt.....	A. H. Bess.....	414,925	Nov. 12	1138	397	49	971
Measure. Adjustable.....	C. W. Sampson.....	416,378	Dec. 3	343	91	49	1436
Measure. Grain.....	H. W. Gipple.....	415,292	Nov. 19	1710	444	49	1082
Measurements. Instrument for taking and transferring.....	J. H. W. Schmidt.....	412,984	Oct. 15	1761	460	49	356
Measuring and examining cloth. Machine for.....	W. Hebdon.....	415,508	Nov. 19	2057	534	49	1151
Measuring apparatus. Fluid.....	P. Kaulass.....	417,563	Dec. 17	2126	566	49	1802
Measuring-instrument. Electric.....	E. Thomson.....	413,292	Oct. 22	2844	583	49	457
Measuring machine. Cloth.....	B. A. Booth.....	411,874	Oct. 1	141	37	49	30
Measuring-rod.....	W. Driscoll.....	413,930	Oct. 29	3176	830	49	653
Measuring the height of horses. Device for.....	H. Lowe.....	414,292	Nov. 5	81	19	49	754
Measuring-vessel for liquids.....	J. P. Müller.....	417,576	Dec. 17	2145	571	49	1806
Meat-cutter.....	R. B. Pumphrey.....	413,459	Oct. 22	2482	644	49	502
Meat-cutter.....	G. H. Stallman.....	412,557	Oct. 8	1139	285	49	230
Meat-cutting machine.....	P. Wilkes.....	414,131	Oct. 29	3473	902	49	714
Meat-juice. Apparatus for extracting.....	I. Giles.....	413,777	Oct. 29	2949	769	49	603
Meat-tenderer.....	D. L. Graves.....	417,521	Dec. 24	2510	589	49	1885
Mechanical movement.....	L. T. Bulley.....	416,354	Dec. 3	304	80	49	1429
Mechanical movement.....	J. I. Conklin.....	413,841	Oct. 15	1559	406	49	318
Mechanical movement.....	M. W. Foster.....	414,512	Nov. 5	508	139	49	843
Mechanical movement.....	C. E. Foster.....	415,636	Nov. 19	2259	589	49	1190
Mechanical movement.....	T. R. Griffith.....	411,960	Oct. 1	965	68	49	4
Mechanical movement.....	R. L. Hatterley and J. Hill.....	414,641	Nov. 5	709	183	49	820
Mechanical movement.....	M. C. Jackson.....	415,783	Nov. 26	2425	649	49	1343
Mechanical movement.....	L. W. Morse.....	414,564	Nov. 5	590	152	49	847
Mechanical movement.....	E. Rau.....	413,791	Oct. 29	2970	774	49	608
Mechanical movement.....	H. S. Ross.....	417,840	Dec. 24	2536	668	49	1290
Medical compound.....	J. Carrick.....	412,838	Oct. 15	1556	.....	49	317
(Medicine). Remedy for dyspepsia.....	O. F. George.....	414,901	Nov. 12	1105	.....	49	964
(Medicine). Remedy for neuralgia.....	J. O. Ingle, Jr.....	411,921	Oct. 1	909	.....	49	43
(Medicine). Topical remedy.....	W. H. La Rose and R. W. Buzard.....	417,254	Dec. 17	1633	.....	49	1710
Mercury. Extinguishing.....	A. Sommer.....	416,760	Dec. 10	910	.....	49	1537
Metal. Apparatus for tapping molten.....	G. J. Goetz.....	414,397	Nov. 5	317	81	49	803
Metal box or chest.....	W. H. Atkinson.....	411,713	Oct. 29	2970	774	49	608
Metal by electro-deposition. Apparatus for obtaining sheets of.....	S. C. Davidson.....	417,813	Dec. 24	2499	655	49	1883
Metal by electro-deposition. Apparatus for obtaining sheets of.....	C. C. Codin.....	415,634	Nov. 12	1320	334	49	999
Metal cutting and punching machine.....	J. H. Sanders.....	416,890	Dec. 10	1057	285	49	1562
Metal-cutting shears.....	M. B. Brown.....	412,362	Oct. 8	854	222	49	173
Metal-detector. Electrical.....	J. F. Kester.....	412,934	Oct. 15	1663	439	49	340
Metal flanges. Making wrought.....	G. Van Wagenen and J. Graves.....	416,816	Dec. 10	909	267	49	1572
Metal. Forming articles of.....	A. Weed.....	418,631	Dec. 31	3757	981	49	2139
Metal. Machine for galvanizing sheet or plate.....	J. Paton.....	414,951	Nov. 12	1175	306	49	978
Metal. Machine for turning the ends of pieces of.....	H. H. Taylor.....	412,433	Oct. 8	948	349	49	193
Metal-planting machine.....	L. W. Pond.....	417,084	Dec. 10	1380	376	49	1652
Metal plates. Machine for attaching.....	W. W. and K. F. Preston.....	418,341	Dec. 31	3311	868	49	2049
Metal plates. Manufacturing porous.....	C. Payen.....	415,330	Nov. 19	1769	459	49	1085
Metal plates. Producing crystallized.....	C. Payen.....	415,347	Nov. 19	1796	467	49	1099
Metal plates. Producing crystallized.....	C. Payen.....	415,348	Nov. 19	1800	468	49	1099
Metal plates. Producing crystallized.....	C. Payen.....	415,349	Nov. 19	1804	470	49	1100
Metal plates. Producing porous crystallized.....	C. Payen.....	415,683	Nov. 19	2335	609	49	1905
Metal post.....	O. B. Hall.....	412,498	Oct. 8	1056	610	49	913
Metal post.....	O. B. Hall.....	413,716	Oct. 29	2963	747	49	587
Metal post.....	O. B. Hall.....	415,384	Nov. 19	1845	481	49	1108
Metal. Stirrer for molten.....	T. MacFarlane.....	418,022	Dec. 31	3745	978	49	2137
Metal tie-clamp.....	I. S. McGlehan.....	414,778	Nov. 12	911	336	49	927
Metal to powder. Apparatus for reducing.....	R. Yelding.....	417,622	Dec. 17	2306	587	49	1818
Metal wheel.....	G. Volk.....	418,253	Dec. 31	3170	831	49	2021
Metal wheel.....	P. del Valle.....	418,634	Dec. 31	3763	983	49	2140
Metals by amalgamation. Separating.....	W. A. Williams.....	416,403	Dec. 3	374	100	49	1443
Metals by electricity. Cutting.....	B. C. Tilghman.....	416,673	Dec. 10	1074	320	49	1300
Metals. Electro-deposition of.....	W. Siemens.....	415,576	Nov. 19	273	567	49	1175
Metals from ores. Plant for the extraction of.....	G. W. Goetz.....	416,780	Dec. 10	939	253	49	1562
Metals. Hydro-metallurgical method of extracting.....	J. H. Selwyn.....	412,300	Oct. 8	757	254	49	155
Metals into irregular shapes. Machine for spinning.....	J. Browning.....	417,296	Dec. 17	1596	435	49	1703
Metals. Reducing.....	W. A. Konegan.....	414,712	Nov. 12	822	214	49	910
Metals. Separating.....	E. R. Shepard.....	416,448	Dec. 3	441	120	49	1458
Metallic clamp.....	R. T. McMurphy.....	413,793	Oct. 29	2974	831	49	1300
Metallic fabric.....	R. T. McMurphy.....	416,484	Dec. 3	474	134	49	1468
Metallic fasteners. Die for the manufacture of.....	E. J. Shipley.....	418,534	Dec. 31	3612	942	49	2112
Metallic rosette.....	L. L. Sagendorph.....	417,064	Dec. 10	1398	361	49	1313
Metallic salts from pulverized material mixed therewith. Apparatus for separating solutions of.....	C. T. J. Vauht.....	413,700	Oct. 29	2939	766	49	602
Metallic vessel.....	S. H. Grimm.....	414,211	Nov. 5	52	11	49	748
Metallic wheel.....	W. P. Avery.....	413,884	Oct. 29	3108	810	49	636
Metallic wheel.....	W. P. Avery.....	414,360	Nov. 5	728	70	49	794
Metallic wheel.....	R. Foster and J. Howard.....	413,923	Oct. 29	3124	831	49	654
Metallic wheel.....	C. E. Mark.....	413,949	Oct. 29	3204	837	49	658

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Metallic wheels. Manufacturing.....	J. A. Facer.....	414,031	Oct. 29	3333	869	49	686
Meter:							
See Electric motor. Piston meter.							
Gas-meter. Proportional meter.							
Grain-meter. Rotary meter.							
Liquid-meter. Steam-meter.							
Microphone.....	E. F. Heydler.....	412,885	Oct. 15	1627	425	49	330
Microphonic transmitter.....	B. Abdank-Abakanowicz.....	412,579	Oct. 8	1160	305	49	236
Middlings-purifier.....	J. A. Wahlstrom.....	417,453	Dec. 17	1932	515	49	1766
Milk-can.....	E. Plancon.....	417,663	Dec. 17	2225	608	49	1835
Milk-cooler.....	W. W. Mallory.....	414,561	Nov. 5	585	151	49	856
Milk-cooler.....	L. H. Porter.....	416,423	Dec. 3	402	108	49	1450
Milk-jar.....	L. D. Jones.....	412,339	Oct. 8	821	213	49	166
Milk-precerving apparatus.....	J. T. Appleberg.....	413,472	Oct. 22	2501	648	49	506
Milk-tester.....	C. B. Cochran.....	418,469	Dec. 31	3550	928	49	3098
Milk. Testing.....	C. B. Cochran.....	418,448	Dec. 31	3473	928	49	3092
Milking machine. Cow.....	J. J. Lefebvre.....	417,050	Nov. 10	1330	364	49	1641
Mill:							
See Coffee-mill. Roller-mill.							
Crushing-mill. Rolling-mill.							
Crushing and grind- Rubber-sheeting mill.							
ing mill. Saw-mill.							
Grinding-mill. Sugar-mill.							
Ore-mill. Wood-mill.							
Mill appliance.....	H. Aiken.....	415,401	Nov. 19	1872	487	49	1113
Mill appliance.....	H. Aiken.....	415,663	Nov. 19	2300	599	49	1199
Mill-races. Device for clearing the gratings of.....	C. Rakes and J. H. Eilers.....	414,887	Nov. 12	1085	378	49	960
Milling-machine work-holder.....	C. H. Traak.....	414,174	Oct. 29	3545	926	49	729
Milling-tool.....	T. Eynon.....	417,776	Dec. 24	2441	643	49	1872
Millstone feeder and cooler.....	Z. W. Murphy.....	417,498	Dec. 17	2014	537	49	1782
Minerals. Apparatus for sorting.....	G. Kilgour.....	413,188	Oct. 22	3081	542	49	425
Miner's candlestick.....	G. P. Peterson.....	417,862	Dec. 24	3304	683	49	1701
Miners' hats. Lamp-carrier for.....	C. H. Hobson.....	416,362	Dec. 3	164	44	49	1400
Mining-cage counter-balance.....	R. H. Arthur.....	413,123	Oct. 15	1977	515	49	398
Mining-machine.....	J. Kangley.....	412,302	Oct. 8	704	185	49	146
Miter-box.....	H. E. Davis.....	415,940	Nov. 26	2723	712	49	1293
Miter-box.....	W. S. Herrington.....	414,412	Nov. 5	343	86	49	808
Miter-box.....	L. W. Jacobs.....	411,544	Nov. 5	555	142	49	851
Miter-box.....	M. C. Patrick.....	414,655	Nov. 5	732	189	49	885
Mitering-machine.....	E. Hauelsen and E. C. Boberge.....	415,637	Nov. 19	2268	591	49	1192
Mixer:							
See Dough-mixer. Gas and air mixer.							
Mixer.....	P. A. Oliver.....	412,783	Oct. 15	1489	387	49	303
Mold:							
See Brick-mold. Cigar-mold.							
Bullet-mold. Glass-mold.							
Butter-mold. Ingot-mold.							
Casting-mold. Sectional mold.							
Mold.....	J. Kinzer.....	413,674	Oct. 29	2807	730	49	576
Molders. Picker-rod for.....	H. R. Travers.....	415,179	Nov. 12	1539	396	49	1041
Molder's sprue.....	D. J. Heaphy.....	411,962	Oct. 1	268	69	49	54
Molding apparatus.....	C. W. Pierce.....	414,576	Nov. 5	604	156	49	860
Molding. Diaphragm-die for plastic.....	J. H. Mitchell.....	414,433	Oct. 22	2476	613	49	501
Molding machine. Curved.....	A. O. Kirtledge and T. S. Crane.....	414,036	Oct. 29	3373	877	49	694
Moldings. Composition of matter for.....	P. E. Gonon.....	414,308	Nov. 5	50	49	49	748
Moldings. Composition of matter for.....	P. E. Gonon.....	414,309	Nov. 5	51	49	49	748
Moldings. Cutter for making.....	P. Siotte.....	417,748	Dec. 24	2396	630	49	1863
Mole-trap.....	W. B. Mills.....	415,728	Nov. 26	2407	629	49	1227
Monkey-wrench.....	W. H. Kaltenbeck.....	414,772	Nov. 12	801	233	49	925
Mop.....	H. G. Hanson.....	416,163	Dec. 3	23	7	49	1373
Mop.....	W. H. Miller.....	411,822	Oct. 1	70	19	49	17
Mop.....	E. Beach.....	417,075	Dec. 19	1371	375	49	1650
Mop.....	J. E. Youngblood.....	412,318	Oct. 8	784	304	49	160
Mop and wringer. Combined.....	C. Sangster and A. R. Ormsby.....	413,055	Oct. 15	1927	504	49	389
Mop-head.....	E. Beach.....	414,629	Nov. 5	690	150	49	877
Mop-head.....	C. E. Curtis.....	414,145	Oct. 29	2485	629	49	719
Mop-wringer.....	A. M. Barnham.....	414,628	Nov. 5	699	179	49	877
Mop-wringer.....	A. M. Barnham.....	414,189	Nov. 5	15	4	49	742
Mop-wringer.....	C. Gillmann.....	415,195	Nov. 19	1560	402	49	1053
Mop-wringer.....	E. H. Noble.....	418,565	Dec. 31	3686	963	49	3125
Mop-wringer.....	S. H. Schmeck.....	415,309	Oct. 22	2115	550	49	432
Mortising-bit.....	A. Kappler.....	414,978	Nov. 12	1230	318	49	986
Mortising-machine.....	C. Seymour.....	417,098	Dec. 10	1403	382	49	1656
Mosquito-canopy.....	H. B. Kip.....	415,913	Nov. 26	2668	699	49	1281
Motion. Apparatus for producing intermittent.....	A. Willmer.....	417,966	Dec. 24	2737	717	49	1936
Motion. Device for converting.....	G. A. Goodson.....	414,637	Nov. 5	699	182	49	879
Motor:							
See Boat-motor. Ocean-motor.							
Electric motor. Petroleum-motor.							
Electro-magnetic motor. Rotary motor.							
Fan-motor. Spring-motor.							
Hydraulic motor. Thermic motor.							
Water-motor.							
Motor or pump.....	H. F. Hodges.....	417,387	Dec. 17	1845	495	49	1749
Mower.....	H. Lindstrom.....	416,468	Dec. 3	465	126	49	1463

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.
				Spec.	Dr. gr.	
Mower.....	A. Ryan.....	415,369	Nov. 19	1897	476	49 1104
Mower finger-rod.....	G. Jernberg.....	413,755	Oct. 29	3815	750	49 598
Mower. Lawn.....	T. R. McDonald.....	414,842	Nov. 12	1907	361	49 946
Mower. Lawn.....	H. G. Miller.....	412,970	Oct. 15	1743	455	49 353
Mowing-machine.....	O. Chase.....	412,598	Oct. 8	1199	313	49 942
Mowing-machine.....	M. Kane.....	416,168	Dec. 3	30	110	49 1375
Mowing-machine.....	E. M. Letts.....	412,104	Oct. 1	463	121	49 93
Mowing machine.....	P. and L. P. Lorenz.....	414,063	Oct. 29	3392	879	49 696
Mowing or reaping machine.....	E. M. Krum.....	412,374	Oct. 8	720	188	49 149
Mul. Ac. Removing.....	C. A. Morris and R. G. Packard.....	411,928	Oct. 1	219	56	49 45
Muff.....	E. Statmann.....	412,427	Oct. 8	943	248	49 191
Multiple switch-board circuit.....	J. J. Carty.....	415,765	Nov. 36	3461	643	49 1248
Multiple switch-board testing apparatus.....	C. E. Scribner.....	416,808	Dec. 10	976	265	49 1570
Multiple switch-boards. Test-circuit for.....	C. E. Scribner.....	416,275	Dec. 3	183	49	49 1404
Multiple switch-boards. Test-circuit for.....	C. E. Scribner.....	416,809	Dec. 10	979	265	49 1570
Music-box.....	H. A. Gautschi.....	415,034	Nov. 12	1297	338	49 1002
Music-boxes. Damping device for.....	O. P. Lockmann.....	417,650	Dec. 17	3244	596	49 1826
Music-holder.....	B. Guy.....	411,967	Oct. 1	3155	875	49 3057
Music leaf turner.....	J. Reisinger.....	414,870	Nov. 12	1052	271	49 954
Music-plate for mechanical instruments.....	E. J. Wittebolle.....	417,666	Dec. 17	3316	612	49 1839
Music-stand.....	O. P. Lockmann.....	417,649	Dec. 17	3243	596	49 1826
Musical box.....	F. van Fleet.....	417,797	Dec. 24	3473	652	49 1878
Musical instrument.....	R. W. Palm.....	417,650	Dec. 17	3299	606	49 1834
Musical instrument. Automatic.....	R. W. Palm.....	412,657	Oct. 8	1291	338	49 261
Musical instrument box or case.....	W. B. Lotin.....	411,937	Nov. 5	304	79	49 754
Musical instrument. Stringed.....	C. G. Schuster.....	416,756	Dec. 10	904	244	49 1556
Musical instruments. Machine for playing upon.....	C. S. Crawford.....	416,093	Nov. 26	2966	773	49 1342
Musical instruments. Making reeds and reed-plates for.....	M. Bray.....	416,897	Dec. 10	1112	303	49 1597
Musical instruments. Mouth-piece for.....	H. J. Distin.....	417,413	Dec. 17	1876	502	49 1755
Musical instruments. Reed for.....	J. J. Morgan and A. Dawes.....	417,069	Dec. 10	1358	372	49 1642
Musk. Making artificial.....	A. Baer.....	416,710	Dec. 10	839	211	49 1544
Musk. Making artificial.....	E. Schnauffer and H. Hupfeld.....	412,545	Oct. 8	1113	279	49 227
Mustache-guard.....	M. E. Harrington.....	411,058	Oct. 1	304	79	49 62
Mustache-holder.....	R. W. Hess.....	414,535	Nov. 5	543	139	49 649
Mustache-holder.....	W. H. Masterman.....	417,876	Dec. 24	3586	681	49 1900
Muzzle.....	E. B. Webber.....	413,878	Oct. 29	3697	807	49 633
Nail.....						
See Clutch-nail. Picture-nail.						
Horse-shoe-nail. Shoe-nail.						
Hob-nail.....						
Nail.....	E. M. Sweeney.....	413,980	Oct. 29	3250	819	49 667
Nail-driving device.....	F. H. Van Honten.....	418,360	Dec. 31	3345	873	49 3055
Nail-machine.....	F. F. Raymond, 2d.....	413,554	Oct. 22	3617	678	49 5929
Nail machine. Wire.....	W. Taylor.....	415,480	Nov. 19	3004	319	49 1140
Nail making and distributing machine.....	F. F. Raymond, 2d.....	413,555	Oct. 22	3621	679	49 529
Nail making, distributing, and driving machine.....	F. F. Raymond, 2d.....	414,582	Nov. 5	618	161	49 863
Nail making, distributing, and driving machine.....	F. F. Raymond, 2d.....	414,952	Nov. 12	1177	308	49 978
Nail-making machine.....	F. F. Raymond, 2d.....	413,964	Oct. 29	3223	812	49 663
Nail-strip.....	J. R. Prouty.....	415,175	Nov. 12	1535	395	49 1040
Nails. Receptacle for retailing.....	J. G. Peace, E. L. and I. Dye.....	413,544	Oct. 22	3602	679	49 525
Nailfing-machine.....	J. E. Kimball.....	415,672	Nov. 19	3232	605	49 1202
Name-plate and letter-chute. Combined.....	W. C. Dedrick.....	417,548	Dec. 17	2109	561	49 1798
Napkin-holder table attachment.....	J. M. Hinds.....	415,925	Dec. 24	3414	743	49 1944
Necktie-box.....	J. Cohn.....	412,470	Oct. 8	1008	263	49 305
Necktie-fastener.....	F. C. Fairbanks.....	414,765	Nov. 12	894	232	49 924
Necktie-fastener.....	W. B. McCormick.....	414,490	Nov. 5	534	84	49 606
Necktie-fastener.....	A. A. Wentworth.....	411,871	Oct. 1	304	79	49 29
Necktie-fastener.....	A. A. Wentworth.....	416,386	Dec. 3	354	93	49 1439
Necktie-frame.....	J. Kaiser.....	412,943	Oct. 15	1688	439	49 340
Needle. Belt-lacing.....	H. Bosworth.....	418,393	Dec. 31	3391	885	49 3065
Needle. Button-sewing.....	A. Mandel.....	413,405	Oct. 22	3413	739	49 498
Needle. Hooked or throatied.....	J. M. Merrow.....	415,310	Nov. 19	1739	452	49 1088
Net. Fish.....	A. F. and W. Meisselbach.....	412,773	Oct. 15	1470	384	49 301
Net. Fly.....	T. N. Mathias.....	418,438	Dec. 24	3532	747	49 1948
Netline-collector.....	E. A. Waterschell.....	415,690	Nov. 19	3246	612	49 1308
Night-chair.....	W. Tenfel.....	418,296	Dec. 31	3328	847	49 3038
Non-conducting lining.....	O. P. Hurford.....	412,507	Oct. 8	1067	278	49 216
Nose-hag.....	G. D. Leonard.....	417,256	Dec. 17	1637	442	49 1711
Nose-ring for hogs.....	M. Willeman.....	417,616	Dec. 17	3290	606	49 1817
Nozzle-holder.....	J. Grams.....	414,881	Nov. 12	1077	276	49 958
Nozzle. Spray.....	J. Beau.....	417,464	Dec. 17	1946	519	49 1769
Numbering-machine. Consecutive.....	E. W. Wright.....	414,664	Nov. 5	749	193	49 898
Nut cracker and picker.....	E. A. Force and W. W. Sawyer.....	412,489	Oct. 1	303	79	49 3108
Nut for screw-bolts.....	H. Story.....	417,951	Dec. 24	3703	712	49 1942
Nut-lock.....	R. S. Gladding.....	414,519	Nov. 5	517	132	49 845
Nut-lock.....	T. W. Deering and R. D. Foster.....	417,772	Dec. 24	3434	641	49 1971
Nut-lock.....	J. M. R. Gredberg.....	417,417	Dec. 17	3217	603	49 1537
Nut-lock.....	C. Ives.....	414,708	Nov. 12	817	213	49 909
Nut-lock.....	T. D. Jones.....	415,043	Nov. 12	1313	342	49 1005

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & Vol.	Page.	Page.
Nut-lock	M. Kane	415,786	Nov. 26	3490	650	49	1344
Nut-lock	J. G. Leep	413,402	Oct. 22	3409	624	49	487
Nut-lock	A. Page	417,580	Dec. 17	2148	572	49	1807
Nut-lock	H. Pick	415,386	Dec. 31	3688	964	49	2136
Nut-lock	F. Post	417,746	Oct. 15	1455	368	49	304
Nut-lock	J. F. Shoop	416,960	Dec. 10	1194	326	49	1614
Nut-lock	F. J. Talbot	413,380	Oct. 22	2654	689	49	537
Nut-lock	J. H. Trammel	415,589	Nov. 19	2193	572	49	1178
Nut-lock	J. R. Tron	413,369	Oct. 22	2198	573	49	449
Nut-wrench	P. Cosette	416,154	Dec. 3	8	3	49	1370
Nut-wrench	P. R. Erickson	412,373	Oct. 8	870	227	49	176
Nuts, Implement for removing	J. M. Martin	415,114	Nov. 12	1402	366	49	1024
Nuts, Manufacture of	417,746	Oct. 24	1455	368	49	1875	
Oats, &c. Apparatus for clipping, separating, and grading	W. W. Ingraham	412,344	Oct. 22	3250	604	49	472
Obstetrical appliance	J. P. Turney	412,999	Oct. 15	1788	467	49	361
Obstetrical forceps	J. Robinson	416,429	Dec. 3	456	124	49	1461
Ocean-motor	J. S. Goldmann	416,612	Dec. 31	3727	973	49	2134
Oil-burner	C. Trench	418,427	Dec. 31	3444	900	49	2076
Oil-burner for heating purposes	F. G. Lilly	419,964	Oct. 1	271	70	49	55
Oil-burner, Hydrocarbon	O. Ewert and J. A. Mehling	417,479	Dec. 17	1980	528	49	1776
Oil-burner, Injector	C. H. Clark	412,312	Oct. 15	1453	368	49	1083
Oil-burner, Injector	J. Girard	418,121	Dec. 24	2972	778	49	1973
Oil-harving apparatus	G. D. Streeter	415,075	Nov. 12	1353	353	49	1014
Oil-harving apparatus	W. Vogel	416,876	Dec. 10	1070	291	49	1590
Oil-can	L. Terry	417,722	Dec. 24	1477	367	49	1066
Oil-can	O. I. Hess	417,639	Dec. 17	2233	593	49	1893
Oil-can	P. J. Moore	416,939	Dec. 10	1162	319	49	1609
Oil-can	H. J. Richards	416,345	Dec. 3	290	76	49	1426
Oil-can	F. A. Lunkenhelmer	415,876	Oct. 29	3065	806	49	633
Oil-cup	E. D. Bangs	412,590	Oct. 1	147	36	49	706
Oil-cup	M. S. Cabell	413,295	Oct. 22	2251	564	49	458
Oil-cup	E. Lunkenhelmer	415,578	Dec. 31	3679	961	49	2124
Oil-cup	E. Lunkenhelmer	416,645	Dec. 31	3776	986	49	2143
Oil-distributor for vessels	N. C. Bing	412,590	Oct. 1	147	311	49	340
Oil, Oxidized Insect	C. H. Robinson	414,724	Nov. 12	839	219	49	913
Oil-press	W. R. Fee	416,115	Dec. 24	2959	776	49	1971
Oil-presses, Heating and crushing rolls for	W. R. Fee	416,116	Dec. 24	2961	777	49	1971
Oil, Thickening Insect	C. H. Robinson	414,722	Nov. 12	837	217	49	912
Oil, Thickening Insect	C. H. Robinson	414,723	Nov. 12	838	218	49	912
Oil	E. L. Rand	416,949	Dec. 10	1182	322	49	1611
Oiling cartridge, Sea	A. Locher	413,346	Oct. 22	2232	604	49	472
Ornament	E. W. Johnson	415,881	Nov. 19	1649	426	49	1057
Opera-glass holder	E. B. Meyrowitz	412,774	Oct. 1	1472	369	49	302
Opera-glass holder	J. S. Spencer	416,871	Dec. 10	1072	299	49	1569
Optometer, Coin-operated	B. Green	416,599	Dec. 3	671	181	49	1503
Oranges, &c., for shipment. Preparing	S. Farwell	416,834	Dec. 10	1019	257	49	1578
Oranges, Machine for wrapping	T. W. Moore	414,428	Nov. 5	376	93, 94	49	815
Ordnance	J. H. Brown	412,363	Oct. 8	855	223	49	173
Ordnance, Breech-loading	G. Conover	413,398	Oct. 22	2693	709	49	544
Ordnance, Hydraulic brake for checking and controlling the recoil of	H. Schneider	415,569	Nov. 19	2162	565	49	1172
Ore-calcining furnace	H. Hufschmidt	414,051	Oct. 29	3365	875	49	692
Ore-concentrator	H. J. Anderson	414,962	Nov. 12	1194	311	49	961
Ore-concentrator	T. E. Garner	414,394	Nov. 5	314	80	49	802
Ore-concentrator	J. Gray	415,454	Nov. 19	1965	510	49	1332
Ore-concentrator	E. B. Hastings	412,180	Oct. 1	579	151	49	116
Ore-concentrator	H. P. Holland	416,704	Dec. 3	825	224	49	1533
Ore-concentrator	J. B. Irvin	416,636	Dec. 3	712	193	49	1512
Ore-concentrator	A. B. Paul	414,119	Oct. 29	3459	809	49	712
Ore-concentrator	J. Talloch	412,434	Oct. 8	950	250	49	193
Ore-concentrator	C. H. Voll	416,021	Nov. 26	2842	744	49	1317
Ore-concentrator	H. G. Blasdel	416,963	Dec. 3	771	210	49	1523
Ore-concentrator, Dry	M. B. Dodge	417,476	Dec. 17	1495	327	49	1776
Ore-crusher	J. A. and C. W. Vaughn	412,568	Oct. 8	1148	300	49	233
Ore-mill	W. Bainbridge	415,014	Oct. 15	1812	474	49	3061
Ore-pulverizer	J. E. Westlake	415,881	Nov. 19	1649	426	49	1057
Ore, Reducing unsmelted	J. T. Wainwright	417,291	Dec. 17	2304	610	49	1857
Ore separating and amalgamating machine	A. Custer	414,625	Nov. 12	784	203	49	902
Ore-separator	W. Bainbridge	413,013	Oct. 15	1810	473	49	366
Ore-separator	A. C. Campbell	415,445	Nov. 19	1940	505	49	1137
Ore-separator	J. B. Freeman	412,741	Oct. 15	1422	372	49	283
Ore-separator	W. Hooper	414,706	Nov. 12	814	212	49	908
Ore-washing machine	H. Wander	414,103	Oct. 29	3434	823	49	707
Ores from residuum. Apparatus for reclaiming	J. M. Lee	414,554	Nov. 5	568	146	49	834
Ores, Leaching	J. S. MacArthur	412,808	Oct. 29	2990	700	49	611
Ores, Machine for feeding, sizing and washing	J. D. Coplen	417,907	Dec. 24	2632	694	49	1909
Organ	R. W. Pain	417,581	Dec. 17	2150	572	49	1807
Organ attachment	R. B. Stone	415,425	Nov. 19	1913	498	49	1121
Organ-case	H. E. Chute	416,992	Oct. 10	1321	337	49	1622
Organ-keys, Device for regulating	P. J. Lawrence	415,881	Nov. 19	1649	426	49	1057
Organ-pallet	G. O. Girardin	414,396	Nov. 5	317	81	49	802
Organ-pedal	W. Doherty	414,594	Nov. 5	496	126	49	811
Organ stop-action, Combination	S. Duval	416,158	Dec. 3	15	5	49	1372
Organs, Coupling key-board for	C. Blomquist	416,973	Oct. 29	3675	959	49	2122
Organs, Pneumatic action for pipe	J. E. Treat	416,974	Dec. 10	1307	351	49	1617
Organs, Vocal wave-tremolo for reed	F. T. Shearer	414,088	Oct. 29	3411	886	49	702
Ornamenting surfaces	P. S. Wick	415,427	Nov. 19	1916	498	49	1122
Oven	A. W. Howard	416,839	Dec. 10	1029	277	49	1580

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & P.	Vol.	Page.
Oven. Bake.....	J. D. Bandholz.....	412,943	Oct. 15	1707	{ 445	49	345
Oven. Bake.....	J. M. Wright.....	414,102	Oct. 29	3433	{ 893	49	708
Oven. Baker's.....	J. Rayney.....	415,470	Nov. 19	1968	{ 515	49	1137
Oven-door.....	W. J. Wood.....	417,530	Dec. 17	9093	{ 552	49	1703.
Oven-door. Bake.....	E. P. Hilleher.....	418,225	Dec. 31	3220	{ 842	49	3031
Oven of cooking stove or ranges.....	R. Galbraith.....	416,160	Dec. 3	18	49	1372	
Ovens. Device for holding paper over cakes in.....	E. Balfour.....	416,249	Dec. 3	138	39	49	1386
Ovens. Heat-equalizer for.....	G. R. Moon.....	415,649	Nov. 19	2283	{ 595	49	1185
Overflow.....	W. S. Mayo.....	418,579	Dec. 31	3689	{ 961	49	3124
Overseaming fabrics.....	J. M. Meriow.....	413,531	Oct. 22	2586	{ 670	49	523
Overshoe.....	J. S. O'Hara.....	415,922	Nov. 26	2608	{ 705	49	1287
Overshoe attachment.....	H. B. Crampton.....	415,027	Nov. 13	1384	{ 335	49	1000
Oxygen from air. Apparatus for obtaining.....	L. Chapman.....	417,985	Dec. 24	2750	{ 725	49	1932
Oysters. Apparatus for the cultivation of.....	L. Falero.....	413,503	Oct. 22	2550	{ 660	49	516
Oysters or clams. Implement for opening.....	A. F. Farrell.....	411,797	Oct. 1	31	10	49	10
Packet.....	L. S. Bell.....	417,220	Dec. 17	1	383	49	1330
Packing and measuring vessel.....	T. F. Cray.....	417,667	Dec. 17	2439	{ 601	49	1839
Packing-box.....	P. D. Pike.....	414,077	Oct. 29	3400	{ 833	49	899
Packing-box.....	W. H. Snow.....	414,177	Oct. 29	3359	{ 927	49	730
Packing-box.....	A. H. Stillwell.....	413,420	Oct. 8	945	{ 246	49	1192
Packing for pistons. Metallic.....	A. T. Allen.....	419,327	Oct. 8	647	{ 169	49	135
Packing for vacuum railway-brakes. Rod.....	J. Gresham.....	417,321	Dec. 17	1737	{ 467	49	1730
Packing. Metallic.....	J. M. Oulbal.....	414,882	Nov. 12	1078	{ 276	49	958
Packing. Piston.....	F. Devlin.....	415,097	Nov. 12	1379	{ 361	49	1019
Packing. Piston-rod.....	V. W. Blanchard.....	413,926	Oct. 29	3166	{ 898	49	651
Packing. Piston-rod.....	D. W. Crosby.....	414,024	Oct. 29	3329	{ 806	49	683
Packing. Piston-rod.....	W. Groh.....	415,058	Nov. 26	2901	{ 751	49	1329
Packing. Piston-rod.....	C. C. Jerome.....	415,518	Dec. 31	3585	{ 936	49	3106
Packing. Piston-rod.....	G. J. Roberte and H. Farnum.....	416,501	Dec. 3	517	140	49	1472
Packing. Rod.....	D. H. Chaddack.....	419,874	Oct. 15	1004	{ 418	49	326
Packing stuffing-hoses. Tool for.....	P. J. Smith. (Reissue).....	11,035	Oct. 15	2037	{ 529	49	410
See Collar-pad. Inking-pad. Copying-pad. Sweat-pad. House-shoe-pad. Therapeutic pad.							
Paddle-wheel. Feathering.....	R. Forward.....	417,162	Dec. 10	1504	{ 409	49	1676
Paddle-wheel for vessels.....	R. Bucher.....	415,611	Nov. 19	2227	{ 561	49	1184
Padlock.....	W. F. Amwake.....	413,799	Oct. 29	2979	{ 776	49	609
Padlock.....	J. F. Beasley.....	415,187	Nov. 19	1558	{ 400	49	1051
Padlock.....	J. Straubinger.....	417,692	Dec. 17	2179	{ 579	49	1513
Padlock.....	W. F. Troast.....	418,359	Dec. 31	3344	{ 873	49	2055
Padlock-cover.....	R. A. Wilson.....	416,433	Dec. 3	419	113	49	1454
Padlock. Permutation.....	J. Knibler.....	416,306	Dec. 3	173	46	49	1402
Padlock. Permutation.....	S. H. Logan.....	415,046	Nov. 12	1313	{ 343	49	1006
Paging-machine.....	W. M. L. McAdams.....	416,372	Dec. 3	331	67	49	1434
Paill. Ach.....	H. L. Dull.....	417,816	Dec. 24	2503	{ 659	49	1884
Paill. Dinner.....	C. H. Bailey.....	414,363	Nov. 5	270	68	49	792
Paill. Ice, made of staves.....	H. E. Thornton.....	418,212	Oct. 17	620	49	194	
Paill. Mop-wringer.....	E. A. Wood.....	416,067	Nov. 26	2935	{ 770	49	1339
Paill or like receptacle.....	R. Warner.....	417,299	Dec. 17	1703	{ 458	49	1723
Paill support. Milk.....	J. W. Bliss.....	416,987	Dec. 10	1227	{ 335	49	1621
Paill. Hinge and cover for sap.....	G. J. Record.....	417,281	Dec. 17	1679	{ 454	49	1719
Paint-burner.....	J. Drexler.....	415,171	Dec. 31	3658	{ 802	49	1802
Paint. Casein.....	H. C. Freist.....	416,100	Nov. 26	2976	49	1344	
Paint composition.....	H. W. Clayton.....	417,666	Dec. 17	2968	49	1830	
Paint. Roofing.....	A. C. Freshour and G. W. Lake.....	415,966	Nov. 26	3763	49	1302	
Paint. Treating pyrites cinders for the manufacture of.....	C. Arnott.....	413,438	Oct. 22	2439	49	493	
Pan: See Bed-pan. Evaporating-pan. Dust-pan. Filter-pan.							
Pan.....	T. O. Morton.....	411,996	Oct. 1	315	82	49	64
Pan-lifter.....	J. E. Mason.....	417,061	Dec. 10	1351	{ 370	49	1646
Panoramic views and the like. Apparatus for exhibiting.....	R. Esché.....	416,290	Dec. 3	207	54	49	1409
Pantaloon-holder.....	W. M. Smith.....	414,730	Nov. 12	845	{ 219	49	914
Pantry-alides. Rotating self-closing case for.....	N. S. Wood.....	416,146	Nov. 26	3059	{ 794	49	1359
Paper. Apparatus for delivering sheet.....	F. Hart.....	415,207	Nov. 19	1657	{ 428	49	1073
Paper bag.....	E. E. Clausen.....	414,679	Nov. 12	773	{ 200	49	901
Paper bag.....	W. A. Lorenz.....	418,391	Dec. 31	3282	{ 844	49	2927
Paper-bag holder.....	G. L. Kennedy.....	415,463	Nov. 19	1977	{ 513	49	1134
Paper-bag holder.....	J. Lee.....	416,845	Dec. 10	1036	{ 279	49	1581
Paper-bag machine.....	W. A. Lorenz.....	418,301	Dec. 31	3097	{ 812	49	3007
Paper-bag machinery.....	C. B. Stilwell.....	413,624	Oct. 22	2740	{ 710	49	554
Paper-bag machinery.....	C. B. Stilwell.....	417,346	Dec. 17	1779	{ 477	49	1736
Paper-bag-tube center.....	F. E. Porter.....	413,458	Oct. 22	2481	{ 644	49	502
Paper bags. Machine for the manufacture of.....	A. L. Stevens.....	415,950	Nov. 26	2741	{ 716	49	1297
Paper bags. Machine for stringing.....	J. Weet.....	416,819	Dec. 10	999	{ 313	49	1573
Paper bags. Making.....	J. Arkell.....	414,934	Nov. 12	1148	{ 306	49	972
Paper-bags. Making.....	E. E. Clausen.....	417,905	Dec. 24	2630	{ 693	49	1809
Paper-bags. Making.....	E. E. Clausen.....	417,906	Dec. 24	2631	{ 694	49	1809
Paper box.....	H. W. Deming.....	415,828	Nov. 26	3581	{ 676	49	1363
Paper box.....	H. W. Deming.....	415,829	Nov. 26	3590	{ 676	49	1363
Paper box.....	F. G. Hotchkiss.....	413,784	Oct. 29	2058	{ 711	49	605

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume		Official Gazette.
				Spec.	Dr & Vol.	Page.
Paper box.	C. L. Lockwood	414,321	Nov. 5	209	52	49 780
Paper box.	B. Osborn	417,076	Dec. 10	1369	374	49 1650
Paper box. Angular.	D. S. Clark	413,029	Oct. 15	1836	480	49 371
Paper-box blanks. Attaching angle binding-strips to	T. Remus	417,587	Dec. 17	2158	574	49 1809
Paper-box blanks. Machine for cutting, creasing, and printing	M. Mergoniusky	417,630	Dec. 24	2523	664	49 1888
Paper-box handle	W. D. Smith	416,078	Nov. 96	2940	765	49 1336
Paper-box machine	T. Flynn	417,012	Dec. 10	1270	347	49 1629
Paper-box machine	H. A. House	414,840	Nov. 12	1001	359	49 945
Paper-box machine	J. A. Pratt	414,222	Nov. 12	977	353	49 940
Paper boxes. Apparatus for making	J. Mohs	413,533	Oct. 22	2591	671	49 523
Paper boxes. Machine for making and covering	J. H. Bitterlich	417,533	Dec. 17	2087	554	49 1794
Paper cabinet. Wrapping	S. and E. J. Wheeler	416,902	Dec. 3	75	22	49 1383
Paper-carriers. Automatic lath-feeder for	I. Dnnn	416,464	Dec. 3	375	100	49 1444
Paper-clip	F. A. Ruggles	417,445	Dec. 17	1918	512	49 1704
Paper-cutter	M. T. Baldwin	414,669	Nov. 5	755	195	49 889
Paper-cutter	J. Boyer and C. M. Geyer	417,140	Dec. 10	1469	398	49 1068
Paper-cutter	F. W. Drosten. (Reissue)	11,041	Nov. 19	2350	613	49 1309
Paper-cutter	F. W. Drosten. (Reissue)	11,042	Nov. 19	2351	613	49 1309
Paper-cutting device.	C. B. Stilwell	414,365	Nov. 5	103	31	49 733
Paper-cutting machine	B. J. Pavver and T. Burns	413,066	Oct. 15	1913	506	49 387
Paper-cutting machines. Cutting-stick for	J. E. Hamilton	416,062	Dec. 3	675	183	49 1563
Paper-drying machine	L. W. Noyes	413,728	Oct. 29	2878	750	49 380
Paper-fastener	H. A. Free	417,165	Dec. 10	1567	410	49 1676
Paper-fasteners. Machine for making	R. J. Shipley	418,333	Dec. 31	3610	942	49 2111
Paper-fasteners. Machine for making	R. J. Shipley	418,335	Dec. 31	3613	943	49 2112
Paper-fasteners. Machine for making	R. J. Shipley	418,336	Dec. 31	3615	943	49 2112
Paper-fasteners. Making	R. J. Shipley	416,510	Dec. 3	529	144	49 1475
Paper-feeding mechanism	E. Dummer	414,147	Oct. 29	3469	909	49 720
Paper-feeding mechanisms. Automatic regulator for	J. A. M. Ross	415,677	Nov. 26	3614	984	49 1369
Paper-langers' cutting boards. Attachment for	J. H. Vickers	414,634	Nov. 5	371	91	49 514
Paper holder and cutter. Roll	L. Ehrlich. (Reissue)	11,045	Nov. 19	2352	613	49 1309
Paper holder and cutter. Roll	A. F. Hendershott	415,199	Nov. 19	1667	403	49 1054
Paper holder and cutter. Roll	J. B. Lawton	416,627	Dec. 10	1153	315	49 1606
Paper holder and writing-tablet. Attachment for	F. B. Wilson	418,383	Dec. 31	3215	841	49 2030
Paper holder. Shaving	J. H. Vickers	414,365	Nov. 5	103	31	49 733
Paper holder. Toilet	C. C. Johnson	416,842	Dec. 10	1033	278	49 1580
Paper-machine	L. O'Neill	412,656	Oct. 8	1291	337	49 360
Paper. Machine for lightening sheets of	C. M. Ott	418,310	Dec. 31	3206	852	49 2040
Paper-making machine	H. H. Crum	417,545	Dec. 17	2156	560	49 1798
Paper-making machine	F. A. Cushman	417,546	Dec. 17	2106	560	49 1798
Paper-making machines. Conch-roll for	J. Boyne	412,359	Oct. 8	850	222	49 173
Paper-making machines. Roll for	A. Carpenter and A. B. Crosby	412,162	Oct. 1	548	143	49 110
Paper-making machines. Water-marker for	F. H. Richards	412,704	Oct. 15	1406	380	49 1494
Paper. Making wrinkled or rough-surfaced	W. Lytle	414,557	Nov. 5	679	149	49 855
Paper-perforating machine	J. H. Rogers	412,001	Oct. 1	319	83	49 65
Paper-pulp machine	J. W. Reed and C. B. Martien	417,282	Dec. 17	1681	454	49 1719
Paper receptacle	O. H. Hicks	418,179	Dec. 31	3608	804	49 2000
Paper receptacle	O. H. Hicks	418,180	Dec. 31	3609	805	49 2000
Paper-roll holder and cutter	E. B. Wilson	416,821	Dec. 10	965	309	49 1574
Paper-roll holder and cutter	W. S. Reynolds	414,923	Nov. 12	979	253	49 940
Paper-roll holder and cutter	J. B. Seymour, Jr.	417,592	Dec. 17	2164	576	49 1810
Paper-roll holder and cutter	E. B. Weston	415,233	Nov. 19	1611	415	49 1064
Paper-roll machines. Rewinding-shaft for	R. W. Grovener	416,782	Dec. 10	943	354	49 1563
Paper safe. Toilet	E. L. Moodie	416,340	Dec. 3	277	73	49 1494
Paper to be used for perforating, &c. Adhesive	G. H. Davis	416,721	Dec. 10	859	249	49 1547
Paper vessel	J. L. Sefton	416,810	Dec. 10	981	266	49 1571
Paper vessel	J. Veneman	416,817	Dec. 10	960	267	49 1572
Paper vessels	S. E. Elwood	416,265	Dec. 3	654	177	49 1499
Paper-waterproofing machine	F. W. Miller and J. J. Newman	413,286	Oct. 22	2237	581	49 526
Paper-weight	J. H. Walker	417,375	Dec. 17	1924	490	49 1745
Papers and the like. Device for stringing	R. P. Stansbury	417,110	Dec. 10	1418	387	49 1659
Papers. Combined cover and bladder for	G. M. Githens	414,362	Nov. 5	103	31	49 733
Parcel carrier or holder	M. Medart	415,115	Nov. 12	1494	369	49 1025
Parer. Vegetable	W. E. Brock	414,856	Nov. 12	1033	306	49 950
Passenger-recorder for railway-cars	A. C. Stone	418,391	Dec. 31	3388	884	49 2065
Paste. Making	G. Turk	412,300	Oct. 8	771	192	49 158
Pasting device. Wrapper	E. E. Porter	416,655	Dec. 24	2862	793	49 1953
Pattern.						
See Ribbed-cylinder pattern.						
Pattern-lifter	J. B. Weirick	413,245	Oct. 22	2163	564	49 442
Pattern. Making	W. J. Keep	413,759	Nov. 12	1451	380	49 968
Pavement	S. B. Jerome	412,361	Oct. 8	703	185	49 146
Pavement. Concrete	T. F. Hagerty	413,278	Oct. 22	2217	561	49 452
Paving-block-cutting machine	L. T. Southworth	417,519	Dec. 17	2049	546	49 1789
Pawl and ratchet	G. M. Githens	414,362	Nov. 5	103	31	49 1499
Pawl-and-ratchet mechanism	L. J. Jones	414,515	Nov. 5	527	143	49 852
Pawl-and-ratchet mechanism	O. K. McIntire	417,209	Dec. 17	1658	449	49 1715
Pea-huller	W. F. Smith	412,005	Oct. 1	325	85	49 66
Pedal attachment	H. F. Chase	415,572	Dec. 31	3608	808	49 2122
Pegging-machine	F. Chase	415,691	Nov. 12	1373	352	49 1073
Pegging-machine	J. F. Davey	414,501	Nov. 5	489	124	49 839
Pen	E. C. Wiley	414,730	Nov. 12	860	223	49 917
Pen	W. W. Winton	414,744	Nov. 12	865	224	49 918

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	De'g.	Vol.	Page.
Pen and pen-holder. Combined.	G. H. H. Clement.	417,704	Dec. 24	3229	615	49	1851
Pen. Fountain.	J. D. Bray	418,304	Dec. 31	3292	855	49	3066
Pen. Fountain.	G. F. Graaf.	416,393	Dec. 3	915	55	49	1410
Pen. Fountain.	J. Holland	415,838	Nov. 26	2562	668	49	1258
Pen. Fountain.	G. S. Parker	416,944	Dec. 10	1174	321	49	1610
Pen-holder. Cork-wood	F. M. Lihay	414,659	Oct. 29	3880	878	49	695
Pen-holder-guiding attachment	C. M. Gay	412,174	Oct. 1	572	149	49	115
Pen-holder rest	T. H. Logan	416,063	Nov. 26	2611	737	49	1312
Pen-holders. Elastic socket for.	M. I. Rodrigue	413,092	Oct. 15	1923	503	49	388
Pen or pencil holder	J. P. Halslip	413,366	Oct. 22	2264	612	49	478
Pen. Ruling.	H. Hinkel	417,024	Dec. 10	1253	353	49	1634
Pen. Ruling.	J. Soderstrom	412,991	Oct. 15	1773	402	49	358
Pencil and calendar. Combined lead.	J. H. Paige	418,217	Dec. 31	3118	817	49	3011
Pencil-clasp	F. N. Foster	413,655	Oct. 29	4773	730	49	570
Pencil-trace and tablet-holder. Combined.	E. Promis	412,541	Oct. 8	1109	280	49	286
Pencil-sharpener	G. F. W. Holman	418,776	Dec. 31	3367	876	49	3090
Pencil-sharpener	R. D. Richardson	418,068	Dec. 24	2874	755	49	1956
Pencil-sharpener	P. W. Tillinghaast	411,909	Oct. 1	195	50	40	40
Pencil-sharpener	M. W. Walker	414,463	Nov. 5	436	110	49	828
Pencil-sharpening gage and point-protector.	J. F. and H. W. Morgan	414,414	Nov. 5	345	87	49	828
Penmanship-guide	P. D. Horton	417,559	Dec. 17	2122	565	49	1801
Pepsin by dialysis. Purifying	J. B. Ruesell	414,591	Nov. 5	634	151	49	806
Perambulator	H. Cohenno	413,709	Oct. 29	2855	745	49	585
Perambulation-lock	W. Lorenz	417,438	Dec. 17	1963	509	49	1701
Perforating-machine	F. Anderson	418,484	Dec. 31	3524	921	49	3092
Perfume-distributing device. Automatic.	L. C. Noble	413,650	Nov. 19	2294	506	49	1195
Permutation-lock	O. S. Bakke and O. Halgrimsen	414,135	Oct. 29	3479	933	49	715
Permutation-lock	C. F. Billheimer	415,492	Nov. 19	3028	526	49	1145
Permutation-lock	G. M. Douglass	414,381	Nov. 5	293	75	49	797
Permutation-lock	J. P. Jones	410,629	Dec. 3	717	194	49	1513
Permutation-lock	J. H. Smith	415,047	Nov. 19	3290	594	49	1919
Permutation-lock	A. C. Lawrence	417,573	Dec. 24	3562	680	49	1809
Permutation-lock	M. B. Mills	418,320	Dec. 31	3278	856	49	3043
Permutation-lock	J. H. and T. D. Morris	414,985	Nov. 12	1227	320	49	988
Permutation-lock	W. F. Peters	412,977	Oct. 15	1751	457	49	355
Permutation-lock	E. C. Smith	414,361	Nov. 5	122	29	49	762
Petroleum. Apparatus for burning crude	N. Washburn	418,326	Dec. 31	3393	861	49	3045
Petroleum-burner	H. B. Galt	418,343	Dec. 31	3159	828	49	3019
Petroleum-burning apparatus.	G. Collins and E. H. Weatherhead	412,875	Oct. 15	1605	419	49	336
Petroleum-motor	A. Altmann and F. Küppermann	412,928	Oct. 8	646	169	49	135
Petroleum motor-engine	K. Gramm	415,008	Nov. 26	2622	698	49	1279
Petal ultratils. Treating the mother-liquors of.	C. Savigny	412,680	Oct. 8	1330	307	49	305
Phonogram-blank	T. A. Edison	414,759	Nov. 12	884	220	49	922
Phonogram-blank	T. A. Edison	414,761	Nov. 12	887	220	49	923
Phonograph	T. A. Edison	414,760	Nov. 12	886	220	49	922
Phonograph	W. W. Jaques	415,359	Oct. 22	3229	570	49	465
Phonograph recorder and reproducer	L. S. Clarke	415,499	Nov. 19	3044	530	49	1148
Phosphate. Making bicaleic	C. E. D. Winssinger	418,259	Dec. 31	3177	823	49	3023
Phosphates. Making	J. Reese	412,793	Oct. 15	1494	366	49	306
Phosphorus. Obtaining	J. B. Readman	417,943	Dec. 24	2695	710	49	1905
Photograph-linisher	C. R. Carley	412,462	Oct. 8	985	258	49	300
Photograph-linishing machine	H. Cray	417,153	Dec. 10	1490	406	49	1673
Photograph-cabinet	S. G. Sherwood	414,171	Oct. 29	3541	924	49	728
Photograph frame	G. W. Gilbert	415,719	Nov. 26	2590	692	49	1223
Photograph-frame	L. H. Orr	415,552	Nov. 19	2134	555	49	1167
Photograph-mount	H. N. Gale	412,933	Oct. 15	1730	450	49	348
Photographic apparatus for holding and exposing sensitive plates.	W. C. Merrill and C. E. Wingo	417,263	Dec. 17	1649	447	49	1713
Photographic camera.	O. Anschütz	417,131	Dec. 10	1456	395	49	1666
Photographic camera	C. W. Eddy	413,901	Oct. 29	2992	777	49	610
Photographic camera	H. Laney	417,871	Dec. 24	2579	679	49	1898
Photographic camera	G. S. Moler	416,939	Dec. 10	1166	319	49	1609
Photographic camera	C. P. Stirn	416,650	Dec. 3	749	203	49	1518
Photographic camera	C. P. Stirn	418,343	Dec. 31	3314	866	49	3049
Photographic-camera plate-holder	M. Jurick	417,045	Dec. 10	1324	362	49	1640
Photographic-camera shutter	A. and L. Chronik	416,440	Dec. 3	426	116	49	1455
Photographic developing-bath	C. Spiro. (Reissue)	11,034	Oct. 15	8036	200	49	410
Photographic emulsions. Machine for coating glass	J. W. T. Cadeiss	414,015	Oct. 29	3313	864	49	621
Photographic films. Manufacture of flexible	H. M. Reichenbach	417,202	Dec. 10	1561	424	49	1667
Photographic films. Roller-holder for	T. Taylor	414,735	Nov. 12	852	221	49	915
Photographic pictures. Making	W. H. Stauffer	413,106	Oct. 15	1946	508	49	392
Photographic-plate holder	J. Thorpe	412,625	Oct. 8	1332	347	49	368
Photographic-printing frame	G. A. James	412,094	Oct. 1	450	117	49	90
Photographic vignette	A. W. Clark	413,611	Oct. 22	2710	704	49	548
Piano-action	F. Krummholz	417,193	Dec. 10	1545	420	49	1663
Piano-action	A. H. Stuart and E. Willard	415,426	Nov. 19	1914	496	49	1121
Piano-agraffe	E. G. Scheicher	411,934	Oct. 1	228	58	47	47
Piano-case	F. Denninger	416,581	Dec. 3	645	175	49	1408
Piano-forte protector	G. W. Warren	416,470	Dec. 10	1090	324	49	1592
Piano-frame	G. E. Throp	414,650	Oct. 8	1353	347	49	369
Piano hammers and jacks. Pin-securer for	A. C. Lyon	418,527	Dec. 31	3604	940	49	3110
Piano tuning-pin	G. M. Guild	417,674	Dec. 17	2279	604	49	1832
Piano tuning-pin	E. E. Holloway	416,334	Dec. 3	368	70	49	1422
Pianos. Key-board for	J. R. Lemay	416,485	Dec. 10	1330	347	49	369
Pianos. Music-rack for	J. R. Lemay	416,471	Dec. 3	470	127	49	1464
Pianos. Shifting action for	H. H. Northrop	416,809	Dec. 10	965	262	49	1568

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	De'g.	Vol.	Page.
Pianos. Stringing.....	S. Hansing.....	416,458	Dec. 3	455	124	49	1461
Pianos. Stringing.....	C. S. Weber.....	416,501	Dec. 3	73	28	49	1383
Pick or tool holder.....	H. Phillips and F. W. Byers.....	417,562	Dec. 17	2019	539	49	1753
Picture-card.....	O. Kaufmann.....	418,135	Dec. 24	3997	726	49	1977
Picture-exhibitor.....	G. Kobich.....	416,985	Dec. 3	215	56	49	1410
Picture-fastening device.....	E. T. Beaman.....	417,905	Dec. 24	3487	655	49	1881
Picture-frame.....	E. T. Hazeltine.....	416,607	Dec. 3	682	184	49	1505
Picture-frame.....	W. L. Wright.....	418,961	Dec. 31	3183	833	49	3024
Picture-nail.....	W. M. Brinkerhoff.....	412,953	Oct. 8	1190	312	49	241
Pigeon-holes. Partition for.....	O. C. S. Olsen.....	417,439	Dec. 17	1912	511	49	1763
Pigments. Apparatus for manufacturing.....	F. L. Bartlett.....	415,185	Nov. 19	1548	309	49	1051
Pile.....	R. Gray.....	414,790	Nov. 12	807	209	49	907
Pile. Metal.....	R. Gray.....	415,037	Nov. 12	1303	339	49	1003
Pile or timber.....	G. Phillips.....	414,250	Nov. 5	106	25	49	739
Pile or timber.....	G. Phillips.....	414,251	Nov. 5	109	25	49	750
Pillow-sham holder.....	J. Shuttling.....	418,240	Dec. 31	3153	827	49	3018
Pillow-sham holder.....	W. C. Van Cise.....	413,214	Oct. 22	2192	551	49	433
Pillow-sham holder.....	T. R. Weyant.....	413,119	Oct. 15	1972	513	49	397
Pillow. Spring.....	W. H. Lewis.....	414,229	Nov. 5	72	18	49	753
Pills. Machine for manufacturing compressed.....	O. Smith and H. K. Mulford.....	413,316	Oct. 22	2273	591	49	463
Pin: See Bouquet-pin. Half-pin. Clothes-pin. Husking-pin. Curtain-pin. Piano tuning-pin.							
Pins for pin-fasteners. Machine for making.....	J. H. Baird.....	418,486	Dec. 31	3329	922	49	2093
Pincushion.....	W. H. King.....	417,922	Dec. 24	2651	700	49	1913
Pinions. Machine for cutting spiral.....	E. P. and H. C. Walter.....	412,215	Oct. 1	624	162	49	125
Pipe: See Locomotive ex. Tobacco-pipe. laust-pipe.							
Pipe and nut wrench.....	B. Donahue.....	414,739	Nov. 12	943	244	49	934
Pipe-bending machine.....	H. E. Fowler.....	417,553	Dec. 17	2116	563	49	1800
Pipe-carrier.....	H. W. Patterson.....	414,443	Nov. 5	406	102	49	821
Pipe-cleaner.....	J. Scheipers.....	412,125	Oct. 1	487	127	49	98
Pipe-coupler.....	C. F. Murdock.....	412,198	Oct. 1	692	156	49	121
Pipe-coupling.....	P. G. Botsford.....	414,855	Nov. 12	1032	266	49	950
Pipe-coupling.....	C. F. Murdock.....	416,230	Dec. 3	113	32	49	1391
Pipe-coupling.....	E. F. Roberts.....	418,591	Dec. 31	3699	966	49	2128
Pipe-coupling.....	E. G. Williams.....	417,127	Dec. 10	1453	394	49	1665
Pipe-coupling. Ball-and-socket.....	T. Aldeon.....	412,940	Oct. 15	1763	445	49	344
Pipe-coupling. Cone and screw.....	J. J. Hogan.....	415,367	Nov. 19	1651	442	49	1109
Pipe-coupling flanges. Making.....	G. Van Wageningen and J. Graves.....	416,815	Dec. 10	988	267	49	1572
Pipe coupling. Gas or other.....	J. S. Hattery.....	412,235	Oct. 8	692	183	49	144
Pipe coupling. Stone ware.....	H. B. Camp.....	413,170	Oct. 22	2060	536	49	421
Pipe couplings. Machine for manufacturing wrought-metal flanges for.....	G. Van Wageningen and J. Graves.....	412,311	Oct. 8	772	201	49	158
Pipe covering. Steam.....	F. L. Bartlett.....	417,768	Dec. 24	2430	640	49	1870
Pipe coverings. Machine for stapling.....	J. H. Shields.....	412,129	Oct. 1	497	132	49	100
Pipe-cutter.....	J. Hammerand.....	415,714	Nov. 26	2387	622	49	1224
Pipe-cutting device.....	C. M. Carnahan.....	414,287	Nov. 5	159	40	49	769
Pipe-elbow die.....	C. B. Cooper.....	416,031	Nov. 26	2280	747	49	1321
Pipe-expander.....	Z. L. Chadbourne.....	415,498	Nov. 19	2043	530	49	1148
Pipe-hanger.....	G. Teusch.....	411,942	Oct. 1	246	63	49	50
Pipe-holder.....	C. M. Danielson.....	416,903	Dec. 10	1118	305	49	1598
Pipe in trenches. Apparatus for laying.....	D. A. Streeter.....	413,979	Oct. 29	3248	848	49	667
Pipe-joint.....	A. S. Gillespie.....	418,007	Dec. 24	2791	736	49	1940
Pipe-joints. Apparatus for sealing.....	T. Shelton.....	413,727	Oct. 29	2892	753	49	593
Pipe-joints. Apparatus for sealing.....	T. Shelton.....	413,738	Oct. 29	2924	753	49	593
Pipe. Machine for making spiral.....	G. R. Green.....	414,584	Nov. 5	525	133	49	846
Pipe. Manufacture of cast-iron enameled.....	A. Haarlander.....	418,644	Dec. 31	3775	985	49	2143
Pipe. Manufacture of composite metallic.....	J. C. Bayles.....	418,154	Dec. 31	3030	796	49	1992
Pipe-molding apparatus.....	W. A. Palmer.....	415,506	Nov. 5	506	133	49	858
Pipe-nipples. Machine for threading.....	H. C. Walter.....	415,592	Nov. 19	2195	573	49	1178
Pipe or hose coupling.....	J. C. Sturgeon.....	417,114	Dec. 10	1496	399	49	1660
Pipe-stems. Absorbent cartridge for.....	W. Demuth.....	413,636	Oct. 15	1845	483	49	373
Pipe-stopper.....	J. A. Mahoney.....	411,975	Oct. 1	289	45	49	59
Pipe union. Lead.....	J. McAllister.....	417,333	Dec. 17	1850	496	49	1750
Pipe-wrench.....	J. T. Hawkins.....	413,940	Oct. 29	3194	834	49	656
Pipe-wrench.....	P. H. Kane.....	412,696	Oct. 1	433	118	49	91
Pipe-wrench.....	J. A. Mahoney.....	416,792	Dec. 10	954	258	49	1565
Pipe-wrench.....	G. F. Newell.....	411,872	Oct. 1	140	35	49	49
Pipe-wrench.....	D. R. Porter.....	413,961	Oct. 29	3220	841	49	692
Pipe-wrench.....	R. J. Robbins.....	416,500	Dec. 3	515	140	49	1472
Pipe-wrench.....	J. R. Smith.....	417,632	Dec. 17	2546	596	49	1826
Pipes.....	C. Mahanick.....	415,947	Nov. 12	1317	343	49	1006
Pipes. Collar or flange for steam or hot-air.....	J. Walker.....	416,767	Dec. 10	916	247	49	1410
Pipes. Coupling for rail-car steam-heating.....	A. M. Hoover.....	416,294	Dec. 3	214	56	49	1410
Pipes. Device for temporarily sealing the ends of soil or waste.....	T. Carley.....	416,325	Dec. 3	257	67, 68	49	1420
Pipes. Mold for cement wrought-iron.....	L. Shuster, Jr.....	416,276	Dec. 3	169	50	49	1405
Pipes. System for cement wrought-iron.....	E. B. Battin.....	412,319	Oct. 8	785	204	49	161
Piping. Mold.....	E. P. Waggoner.....	417,798	Dec. 24	2475	652	49	1879

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly Volume.		Official Gazette.	
				Spec.	Dr. & C.	Vol.	Page.
Piston meter	P. Ball	417,308	Dec. 17	1714	461	49	1736
Piston-rods. Device for pulling cross-heads from	J. W. Wood, Sr.	413,700	Oct. 29	2845	742	49	583
Piston. Self-lubricating	D. B. Morrison	414,777	Nov. 12	910	325	49	927
Pit furnace	L. G. Lauran	411,814	Oct. 1	57	15	49	14
Pitchfork	A. A. Vaag	412,214	Oct. 1	623	162	49	125
Pitman	J. and H. M. Creager	413,929	Oct. 29	3174	829	49	652
Pivots. Means for jewelers and end-shaking arbor-	G. E. Hart	418,127	Dec. 24	2962	781	49	1074
Plane	W. Molster	415,918	Nov. 26	2670	792	49	1283
Plane	G. D. Mosher	413,300	Oct. 22	2258	587	49	459
Plane	S. R. Rust	413,329	Oct. 22	2302	598	49	468
Planing and sawing machine. Combined	J. W. Fulcher	418,118	Dec. 24	2966	778	49	1072
Planing-machine	E. F. Autenrieth	414,833	Nov. 12	991	257	49	943
Planing-machine	E. Benjamin	413,163	Oct. 22	2051	533	49	419
Planing-machine	F. H. Garverich	415,631	Nov. 19	2991	590	49	1191
Planing-machine	S. A. Woods and J. R. Thomas	418,345	Dec. 31	3513	867	49	2050
Planing-machine. Endless-bed surface	W. H. Doane	417,238	Dec. 17	1607	437	49	1705
Planing machine. Floor	H. M. Albee and C. R. Hedden	414,275	Nov. 5	141	35	49	765
Planing-machine guide-bar	E. F. Bengler	412,422	Oct. 8	973	255	49	198
Planing-machine. Hand	J. Hangocksky	413,444	Oct. 22	2403	639	49	498
Planing machine. Metal	J. S. Detrick	414,503	Nov. 5	494	125	49	840
Planing machine. Metal	H. C. Pease	412,457	Oct. 22	2480	644	49	502
Plant-protector. Folding	W. K. Hawks	415,638	Nov. 19	2969	592	49	1180
Plants. Rack for growing	J. Richards	417,838	Dec. 24	2554	667	49	1892
Planter	A. Lett	414,912	Nov. 12	1129	399	49	111
Planter and cultivator. Seed	G. W. Wise	416,884	Dec. 10	1005	295	49	1594
Planter and fertilizer-distributor	G. L. Armbrister	418,485	Dec. 31	3528	922	49	2093
Planter and fertilizer-distributor. Combined seed	G. W. Ferrer	416,291	Dec. 3	309	54	49	1409
Planter and fertilizer-distributor. Seed	J. T. Gallaway	418,174	Dec. 31	3061	803	49	1999
Planter and fertilizer distributor. Seed	J. S. Taylor	412,307	Oct. 8	768	200	49	137
Planter and marker. Check-row corn	F. L. Menefee	413,406	Oct. 22	2413	636	49	488
Planter attachment. Corn	W. Price	412,540	Oct. 8	1108	290	49	226
Planter. Automatic seed	W. J. Wallis	414,696	Oct. 29	3436	891	49	705
Planter. Check-row	G. Ames	412,357	Oct. 8	847	221	49	172
Planter. Check-row corn	E. Croke	412,368	Oct. 8	862	225	49	175
Planter. Corn	C. A. Anderson	415,012	Nov. 12	1206	325	49	906
Planter. Corn	G. D. Bald	414,789	Nov. 12	925	239	49	930
Planter. Corn	J. Kelly	417,499	Dec. 17	1996	534	49	1779
Planter. Corn	A. Lindgren	412,108	Oct. 1	467	132	49	94
Planter. Corn	M. Mohr	411,823	Oct. 1	79	19	49	15
Planter. Corn	W. Shortle	415,387	Dec. 31	3438	892	49	2063
Planter. Corn	F. B. Tait and J. Gross	413,306	Oct. 8	766	199	49	157
Planter. Corn	T. S. Valentine, Sr.	414,345	Nov. 5	244	61	49	788
Planter. Corn	J. T. Williams	415,311	Oct. 22	2578	592	49	464
Planter. Cotton	M. M. Miller	412,150	Oct. 1	532	140	49	107
Planter. Corn	W. and R. L. Woodling	413,396	Oct. 22	2685	698	49	542
Planter. Cotton	J. R. Cook	413,083	Oct. 15	1842	482	49	373
Planter. Cotton	T. J. Johnson and J. L. Mitchell	415,942	Nov. 12	1311	341	49	1005
Planter. Cotton	M. J. Johnson	413,199	Oct. 22	2607	545	49	425
Planter. Cotton or corn	D. C. W. Harrison	412,353	Oct. 8	688	182	49	143
Planter. Cotton-seed	L. E. Seerest	413,105	Oct. 15	1945	508	49	392
Planter. Cotton-seed	L. E. Waterman	416,285	Dec. 3	353	93	49	1439
Planter. Hand	W. L. Kling	414,320	Nov. 5	208	52	49	780
Planter. Hand corn	S. P. Babcock	414,008	Oct. 29	3225	857	49	675
Planter, harrow, and plow. Combined seed	T. J. Russell	417,513	Dec. 17	2039	543	49	1787
Planter. Potato	S. H. Fish	414,148	Oct. 29	3504	910	49	721
Planter. Potato	H. Thaden	417,605	Dec. 17	2182	550	49	1814
Planter. Seed	F. E. Atwood	412,907	Oct. 1	527	139	49	838
Planter. Seed	A. C. Evans	417,159	Dec. 10	1590	409	49	1675
Planter. Seed	E. M. Heylman	413,182	Oct. 1	584	152	49	117
Planter. Seed	W. D. Lindsay	414,439	Nov. 5	267	80	49	813
Planter. Seed	J. I. Mayfield	412,642	Oct. 8	1369	231	49	256
Planter. Seed	C. R. Reid	418,062	Dec. 24	2968	754	49	1954
Planter. Seed	R. E. Richardson	416,498	Dec. 3	513	140	49	1472
Planter. Seed	C. W. Sims	413,210	Oct. 22	2115	390	49	432
Planter. Seed	T. H. Taber	412,806	Oct. 15	1511	390	49	309
Planter. Seed	C. S. Titschaw	413,211	Oct. 22	2116	350	49	492
Planters. Reel for check-row	F. P. Richards	417,798	Dec. 24	3408	650	49	1878
Planters. Reel for check-row	F. Thellengerdas	413,692	Oct. 22	2858	595	49	381
Planters. Reel for check-row corn	F. L. Menefee	415,464	Nov. 19	1979	513	49	1135
Planter	M. Turley and G. W. Chamberlin	416,278	Dec. 3	190	49	49	1405
Planters. Propagator medicinal	F. L. Rhodes	412,915	Oct. 1	518	140	49	14
Plate-holder and printing-frame. Combined	J. M. Rhodes	418,064	Dec. 24	2870	755	49	1955
Plate holder and receiver. Combined	C. C. Balston	413,474	Oct. 22	2503	610	49	506
Plate-lifter	A. White and G. D. Dudley	418,344	Dec. 31	3517	867	49	2050
Plate or dish holder	K. T. Hartshorn	416,364	Dec. 3	366	45	49	1401
Plate or dish washer	T. A. Padan	414,446	Nov. 5	413	104	49	823
Platform							
See Feeder-platform. Well and cistern platform.							
Unloading platform.							
Plow	J. Brinkerhoff	416,888	Dec. 10	1224	336	49	1621

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr't	Vol.	Page.
Plow	J. Clay	414,376	Nov. 5	287	73	49	796
Plow	J. L. Dykes	415,409	Nov. 19	1885	491	49	1116
Plow	O. A. Essig	415,544	Nov. 19	1886	489	49	1067
Plow	C. C. Gregory	414,701	Nov. 12	808	210	49	907
Plow	A. Hohlbauch	414,539	Nov. 5	549	141	49	850
Plow	E. R. James	415,249	Nov. 19	1633	421	49	1068
Plow	J. Leubart	415,548	Nov. 19	2111	549	49	1162
Plow	J. L. Miller	416,509	Dec. 3	174	47	49	1402
Plow	G. Moore	418,468	Dec. 31	3501	916	49	3068
Plow	J. U. Stephens	418,359	Dec. 31	3386	883	49	3064
Plow	Z. E. Stone	414,456	Nov. 5	437	108	49	826
Plow	S. H. Walton	416,111	Dec. 17	1825	490	49	1745
Plow and harrow. Combined rotary.	L. J. Bergendahl	417,466	Dec. 17	1949	520	49	1770
Plow and plaster. Combined lister.	E. P. Lynch	418,526	Dec. 31	3602	940	49	2110
Plow attachment.	T. J. and W. J. Baker	415,092	Nov. 26	3253	615	49	1217
Plow attachment.	E. F. King	416,111	Nov. 26	3002	751	49	1348
Plow, cultivator, &c. Garden	C. Collins	412,840	Oct. 15	1558	406	49	318
Plow, Double-mold-board.	R. Weber	417,892	Dec. 24	2614	688	49	1905
Plow-fender.	J. C. Post	413,290	Oct. 29	2342	582	49	457
Plow-fender.	W. H. Trammel	415,887	Nov. 26	2638	687	49	1272
Plow. Gang.	H. Squire	415,800	Nov. 26	2507	654	49	1247
Plow. Hand.	D. D. Graham	417,169	Dec. 10	1512	411	49	1677
Plow. Mold-board	E. P. Lynch	412,110	Oct. 1	469	132	49	95
Plow-point-sharpening device.	J. E. En	412,488	Oct. 8	1035	299	49	410
Plow. Reversible	J. S. Huber	412,991	Oct. 1	448	116	49	90
Plow running gear.	G. C. Brandriff	412,592	Oct. 8	1189	312	49	241
Plow-sharpening device.	A. Hoffland	416,106	Dec. 3	28	9	49	1375
Plow. Side-hill.	J. D. Burkhart	412,945	Oct. 15	1710	447	49	346
Plow. Side-hill.	H. Ward and J. L. Judd	418,433	Dec. 31	3453	902	49	2978
Plow-stock	J. L. Poole	413,692	Oct. 29	2814	733	49	578
Plow. Sulky.	E. C. Westervelt	413,157	Oct. 15	2035	529	49	410
Plow. Vineyard.	J. A. Bile	417,855	Dec. 24	2560	674	49	1804
Plows. Wheel	L. Lappen	415,350	Nov. 19	1634	422	49	1048
Plows. Jointer-arm for	E. M. Hickmah	415,806	Nov. 26	2599	679	49	1265
Plows. Landside for	J. T. Tapper	416,431	Dec. 3	414	111	49	1453
Plows. Mechanism for making shares for listing.	G. S. Briggs	412,320	Oct. 8	786	204	49	161
Plows. Plant-fender for.	J. R. Parker and M. House	416,892	Dec. 10	268	202	49	1568
Plumbers' and gas-fitters' hooks. Machine for making.	J. Moore	412,282	Oct. 8	734	191	49	151
Plumbers' traps. Apparatus for manufacturing	A. B. Roney	413,460	Oct. 22	2483	645	49	503
Plush-finishing machine	P. Van den Esch	415,009	Nov. 12	1263	329	49	905
Pneumatic conveyor	C. H. Schnitzler	412,995	Oct. 15	1762	460	49	357
Pneumatic dispatch apparatus	E. D. Leaycraft	417,828	Dec. 24	2520	663	49	1888
Pneumatic dispatch-tube	E. D. Leaycraft	411,864	Oct. 1	131	34	49	28
Pneumatic elevator	R. P. Gibson	412,336	Oct. 8	796	207	49	163
Pneumatic engine	H. W. Metzger	417,493	Dec. 17	2245	535	49	1781
Pneumatic tool	J. S. McCoy, F. H. Marsh, and G. H. Williams	415,517	Oct. 8	1075	282	49	218
Pneumatic transit apparatus. Carrier for	G. J. G. and M. O. Rehass	413,557	Oct. 22	2624	681	49	530
Pocket-book	M. F. Langfield	414,226	Nov. 5	73	17	49	752
Pocket-book	I. Scheuer	417,896	Dec. 24	2562	665	49	1803
Pocket-book	E. Schnopp	415,658	Nov. 19	2294	597	49	1197
Pocket-case	W. B. White	415,852	Nov. 26	2580	674	49	1261
Pocket-fastener	E. Woodsford	412,906	Oct. 15	1656	432	49	335
Pocket for garments	A. P. Brown	416,426	Dec. 3	425	115	49	1452
Pocket-knife	J. V. Pilcher	416,946	Dec. 10	1177	321	49	1611
Pocket-knife	J. C. F. Schenck	412,789	Oct. 15	1592	392	49	307
Points, signals, &c. Apparatus for locking and un-locking	S. T. Dutton	416,778	Dec. 10	934	253	49	1561
Pole attachment for vehicles.	F. Splittstofer	415,585	Nov. 19	2189	571	49	1177
Pole. Carriage.	J. R. Freeland	415,101	Nov. 12	1388	362	49	1021
Pole. Coupling	H. N. Hanson	413,056	Oct. 15	1873	499	49	378
Pole. Metallo.	H. B. Terry	411,878	Oct. 1	145	36	49	30
Pole tip. Vehicle.	J. Boylan	415,850	Nov. 26	2550	666	49	1265
Poles, &c. Device for securing broken carriage.	B. Scheuer	413,505	Oct. 22	2635	664	49	532
Polishing-machine	H. C. Oberholtzer	413,121	Nov. 12	1414	369	49	1027
Pop-corn. Medicated	J. N. Evans	415,192	Nov. 19	1558	405	49	1003
Portable furnace	R. Huff	418,465	Dec. 31	3407	915	49	307
Portable furnace	J. N. Müller	416,068	Nov. 26	2921	761	49	1333
Portable heater	H. L. McCoy	415,730	Nov. 26	2409	630	49	1228
Portable house	G. L. Harvey	414,976	Nov. 12	1216	316	49	966
Positions of distant objects. Finding the.	B. A. Fiske	418,510	Dec. 31	3568	932	49	2103
Post.							
See Binding-post. Metal post.							
Electric-light post. Valve operating and indi-cating post.							
Fence-post.							
Hitching-post.							
Post-driving machine	J. G. and A. Weber	412,006	Oct. 1	326	86	49	66
Post-hole digger.	E. C. Taylor and D. N. Lightfoot	413,108	Oct. 15	1947	569	49	393
Post or pile driving machine	M. L. and G. W. Mowers	412,974	Oct. 15	1747	457	49	354
Pot.							
See Chocolate-pot. Coffee or tea pot.							
Coffee-pot.							
Pot or lid lifter	W. F. Kendrick	416,063	Nov. 26	2907	758	49	1330
Potato-digger	C. J. Cummings	415,188	Nov. 19	1553	400	49	1052
Potato-digger	E. T. Ford	412,490	Oct. 8	1041	270	49	210
Potato-digger	E. T. Ford	412,491	Oct. 8	1045	271	49	211

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Potato-digger	W. A. Pinkney	414,656	Nov. 5	733	189	49	885
Potato-digger	J. H. Priestley	417,883	Dec. 24	2395	{ 683 } 684	49	1901
Potato-digger	F. O. Williams	416,303	Dec. 3	77	22	49	1283
Potato digger and picker	H. Horner	412,619	Oct. 8	1340	{ 323 } 324	49	849
Potato digging and gathering machine	I. W. Hoover	415,202	Nov. 19	1574	405	49	1056
Pottery-machine	W. L. Shepard	417,089	Dec. 10	1404	383	49	1657
Pottery-turning-machine attachment	W. H. Baker	417,967	Dec. 24	2728	717	49	1927
Poultry. Pen for exhibiting	W. H. Drewitt	415,709	Nov. 26	2467	644	49	1339
Powder:							
See Bleaching-powder. Lanolin powder.							
Power:							
See Animal tread-power. Horse-power.							
Churn-power. Surf-power.							
Foot-power. Wave-power.							
Power-brake	L. P. Lawrence	417,194	Dec. 10	1546	420	49	1683
Power-brake	L. P. Lawrence	418,574	Dec. 31	3669	950	49	2122
Power-brake	L. P. Lawrence	418,574	Dec. 31	3671	959	49	2122
Power-jack	G. W. Mathewson	412,512	Oct. 8	1080	289	49	319
Power-transmitting device	A. W. Best and H. G. Underwood	416,090	Nov. 26	2958	771	49	1340
Power-wrench	T. F. Wells	418,098	Dec. 24	2925	{ 767 } 768	49	1965
Preserving apparatus. Fruit	S. Unna	418,251	Dec. 31	3168	409	49	2021
Preserving oranges. Composition for	A. C. Wuerpel	413,249	Oct. 22	2109	49	49	442
Preserving-vessel	A. Otto	412,534	Oct. 8	1100	288	49	224
Press:							
See Baling-press. Hat-crown press.							
Cider and wine press. Hay-press.							
Copping-press. Letter-press.							
Cotton-press. Oil-press.							
Crock-press. Printing-press.							
Cutting-press. Seal-press.							
Die-press. Stamping-press.							
Drill-press.							
Press	A. T. Brewer	417,807	Dec. 24	2489	656	49	1881
Press	C. A. Erickson	413,028	Oct. 29	3328	868	49	654
Press attachment. Job	D. W. and F. W. Glendinning	412,846	Oct. 15	1564	408	49	319
Presses. Bale-removing and heading-up attachment for	W. C. Hackett	415,909	Nov. 26	2663	698	49	1280
Pressing fabrics. Machine for	G. W. Miller	412,776	Oct. 15	1474	385	49	392
Pressure. Instrument for recording differences of	C. Herschel	417,245	Dec. 17	1618	439	49	1707
Pressure regulator. Volumetric fluid	W. D. House	415,293	Nov. 19	1575	406	49	1056
Pressure regulator. Volumetric fluid	W. D. House	415,304	Nov. 19	1577	406	49	1056
Printer	S. H. Emmons	411,796	Oct. 1	39	10	49	9
Printer's chase	A. W. Ekstrom and J. F. Galvin	417,478	Dec. 17	1979	528	49	1776
Printer's chase-transportation case	P. E. Dowe	418,507	Dec. 31	3565	931	49	2102
Printer's leads. Machine for shaving	E. O. Chase	416,968	Dec. 3	643	170	49	1494
Printer's quoin	A. C. H. Browne	413,160	Oct. 22	2034	534	49	489
Printer's rollers. Apparatus for making	L. K. Bingham	413,243	Oct. 29	3038	792	49	691
Printer's rollers. Apparatus for making	L. K. Bingham	413,293	Oct. 29	3120	813	49	638
Printer's rollers. Apparatus for making	L. K. Bingham	413,294	Oct. 29	3121	813	49	638
Printer's rollers. Apparatus for making	L. K. Bingham	413,323	Oct. 32	3577	668	49	521
Printer's rollers. Machine for cutting and mitering	R. Meriman	417,728	Dec. 24	2578	626	49	1800
Printer's rules. Machine for making	R. Meriman	417,738	Dec. 24	2581	627	49	1800
Printing	T. H. Bowes	412,014	Oct. 1	345	90	49	70
Printing and cutting holder. Paper	G. L. Kennedy	413,603	Oct. 29	2984	778	49	610
Printing and ruling machine. Combined	J. W. Dickieson	415,902	Nov. 26	2650	{ 694 } 695	49	1277
Printing apparatus	C. H. Deane	413,176	Oct. 22	2067	538	49	422
Printing device	A. L. Stevens	415,985	Nov. 26	2735	729	49	1306
Printing-form and means for securing the same in place. Flexible	W. C. Wendt	415,132	Nov. 12	1429	374	49	1029
Printing-form or sheet	R. Meriman	417,737	Dec. 24	2580	627	49	1800
Printing-frames. Vignetting attachment for	S. D. Harvey	414,811	Nov. 12	1393	349	49	857
Printing, lithographing, &c	O. G. Holt	412,123	Oct. 1	566	148	49	118
Printing-machine	J. Brooks	413,491	Oct. 22	2529	{ 655 } 656	49	512
Printing-machine	S. Whitlock	413,468	Oct. 22	2495	647	49	505
Printing-machine. Chromatic	C. B. Cottrell	412,978	Oct. 15	1611	421	49	327
Printing-machine. Color	W. and T. S. Conliss	412,072	Oct. 1	422	{ 110 } 111	49	85
Printing-machine. Cylinder	C. B. Cottrell	412,877	Oct. 15	1697	420	49	327
Printing-machine. Rotary	J. L. Firm	415,321	Nov. 19	1754	456	49	1092
Printing-machines. Adjustable gawing for	T. King	414,979	Nov. 12	1321	318	49	987
Printing-machines. Device for preventing offsetting in	J. E. Vivian	417,207	Dec. 17	1700	458	49	1723
Printing-machines. Form-roller mechanism for	S. Whitlock	416,290	Dec. 10	993	{ 268 } 269	49	1573
Printing-machines. Mechanism for cutting and feeding paper for	J. A. Dear	414,299	Nov. 5	177	44, 45	49	773
Printing-machines. Printing attachment for rotary	C. N. Roberts	417,509	Dec. 17	2031	542	49	1786
Printing-machines. Printing attachment for rotary	W. H. Paine	417,199	Dec. 10	1353	423	49	1655
Printing-press	N. Bilstein and J. F. Snelker	414,791	Nov. 12	1297	340	49	930
Printing-press	G. P. Fenner	416,287	Dec. 3	657	178	49	1590
Printing-press	G. W. McElhone	414,869	Nov. 12	1050	271	49	963
Printing-press cutting and feeding mechanism	W. Scott	414,593	Nov. 5	636	{ 165 } 166	49	866
Printing-press cutting attachment	A. R. Bartlan	413,887	Oct. 29	3111	{ 811 } 812	49	636
Printing-press. Cylinder	B. Huber	416,786	Dec. 10	947	256	49	1563

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Pat. Dec.	Dr. St.	Vol. Pat.	Page. Gazette.
Printing-press. Cylinder	R. Huber	417,226	Dec. 24	2518	663	49	1887
Printing-press gripper	W. C. Paul	412,412	Oct. 8	922	241	49	901
Printing-press set-off mechanism	C. B. Cottrell	414,680	Nov. 12	775	201	49	187
Printing-press sheet-delivery apparatus	W. Scott	412,814	Oct. 29	3000	781	49	613
Printing-press sheet-delivery mechanism	J. H. Reynolds	417,284	Dec. 24	3597	684	49	1902
Printing-presses. Perforating device for	G. N. Breed	417,602	Dec. 17	2262	600	49	1829
Printing. Producing from a copy a plate or type for	F. X. Ritter	412,760	Oct. 15	1453	389	49	298
Printing-surface	R. Meriman	416,174	Dec. 3	39	12,13	49	1376
Printing-surface compound	A. J. Parker	414,571	Nov. 5	598		49	859
Printing-surface. Preparation of	R. A. Brooks	417,148	Dec. 10	1475	401	49	1609
Projectile	S. H. Emmons	414,387	Nov. 5	304	77	49	800
Projectile	S. H. Emmons	414,388	Nov. 5	305	78	49	800
Projectile	G. H. Ogilvy	414,989	Nov. 12	1231	321	49	969
Projectile	G. R. Ross	412,670	Oct. 8	1313	343	49	364
Propeller. Centrifugal auxiliary	R. Stevenson	417,788	Dec. 24	2605	646	49	1603
Propeller. Chain	N. W. French	413,252	Oct. 29	3049	795	49	624
Propeller-dam	G. Clarke	412,097	Oct. 8	1352	352	49	272
Propeller for boats. Vibrating	S. A. Wight	415,022	Nov. 12	1363	355	49	1015
Propeller for vessels. Reciprocating	S. Suellenburg	415,584	Nov. 19	2187	570	49	1177
Propeller. Screw	D. Fred	411,602	Oct. 1	36	12	49	11
Propeller. Screw	L. N. Tonn	413,952	Nov. 12	2197	572	49	418
Propeller-wheel	P. St. Johns	413,573	Oct. 22	2646	686	49	535
Propelling and steering boats	I. David	414,298	Nov. 5	177	44	49	772
Propelling mechanism for boats	R. Kenover	414,711	Nov. 12	830	214	49	910
Propelling mechanism for vessels. Adjustable	P. E. Collins and E. H. Taylor	416,323	Dec. 3	354	49	1419	949
Proportional meter	P. E. Youngs	412,924	Oct. 15	1535	402	49	382
Proportional meter	P. E. Youngs	413,121	Oct. 15	1975	514	49	398
Protector.							
See Bottle-protector.	Head-protector.						
Clock and skirt pro- tector.	Piano-forte protector.						
Corner and edge protector.	Plant-protector.						
Grave-protector.	Watch-protector.						
Protractor	C. E. De Pay	413,497	Oct. 22	2541	657	49	514
Protractor	F. Johnson	418,133	Dec. 24	2994	785	49	1977
Protractor	J. C. Miller	418,415	Dec. 31	3422	894	49	3072
Pruning implement	C. Dunham	414,974	Nov. 12	1214	316	49	985
Pruning-shears guard	D. A. Dunham	413,652	Oct. 29	2770	719	49	570
Puddling-furnace. Rotary.	G. Lindenthal	414,556	Nov. 5	577	149	49	855
Puller.							
See Wad-puller.							
Pulley	W. W. Annable	413,819	Oct. 29	3008	783	49	615
Pulley	G. E. Burt	416,561	Dec. 3	613	167	49	1492
Pulley	W. H. Dodge	412,916	Oct. 15	1674	437	49	338
Pulley	W. R. Edelen	416,233	Dec. 20	1017	274	49	1578
Pulley	R. Gillham	413,335	Oct. 8	815	211	49	165
Pulley	W. J. Gorham and M. A. Graham	414,307	Nov. 5	191	47, 48	49	776
Pulley	P. Jennings	413,723	Oct. 29	2871	749	49	559
Pulley	P. W. Lawson and L. P. Platt	412,676	Oct. 8	735	169	49	159
Pulley	G. Philbin	413,028	Oct. 22	2730	707	49	552
Pulley	J. A. J. Shultz	415,948	Nov. 26	2737	716	49	1286
Pulley. Band-saw	J. R. Hoffman	417,425	Dec. 17	1893	507	49	1759
Pulley-block and belaying-pin. Combined	J. K. Miller	411,898	Oct. 1	136	35	49	29
Pulley-block sheave	H. P. Terry	412,139	Oct. 1	515	135	49	104
Pulley. Carrying	A. McLean	416,943	Dec. 10	1174	321	49	1610
Pulley. Clutch	C. E. Burwell	416,562	Dec. 3	615	167	49	1492
Pulley. Clutch	H. I. Mason	418,405	Dec. 31	3102	814	49	2097
Pulley. Expanding	W. G. Finlay	414,508	Nov. 5	502	127	49	842
Pulley-lubricating device. Loose	T. R. Almond and L. J. Groshean	412,826	Oct. 15	1538	402	49	215
Pulley lubricator. Loose	J. B. Rhodes	414,888	Nov. 12	1066	278	49	960
Pulley-molding machine	H. Laissle	418,923	Dec. 31	3593	938	49	2107
Pulley or wheel	N. Shaw	418,076	Dec. 24	2992	759	49	1959
Pulley. Separable	H. J. Gilbert	416,457	Dec. 3	454	123	49	1460
Pulley. Separable	H. J. Gilbert	416,592	Dec. 3	664	179	49	1501
Pulley. Split	D. Argerbright	414,480	Nov. 5	462	117	49	834
Pulley. Split	T. Davey	416,575	Dec. 3	638	173	49	1406
Pulleys. Bushing for split	C. McNeal	415,920	Nov. 26	3094	794	49	1289
Pulleys. Making sash-cord	C. P. Wiggins	418,632	Dec. 31	3759	982	49	2140
Pulp. Apparatus for molding articles from	C. O. Case	414,972	Nov. 12	1213	315	49	985
Pulp-digester	H. F. Smith	415,304	Nov. 19	1737	450	49	1066
Pulp-machine	C. C. Springer	411,538	Oct. 1	96	30	49	22
Pulp washing and bleaching machinery	G. J. Thomas	417,689	Dec. 17	2301	609	49	1836
Pulp screening machine	J. Hoyt	412,258	Oct. 8	696	184	49	145
Pulping-engine	E. Victory	417,451	Dec. 17	1930	514	49	1766
Pulping-engine	J. H. Amundale	412,871	Oct. 15	1601	417	49	336
Pulverizer	G. and A. Raymond	415,421	Nov. 19	1906	495	49	1120
Pulverizer and concentrator	I. W. Hellig	418,514	Dec. 31	3577	834	49	2105
Pulverizer and cultivator. Combined	G. W. Bassett	413,642	Oct. 29	2757	716	49	567
Pulverizer. Clay	J. Creager	412,471	Oct. 8	1009	263	49	305
Pulverizer. Rotary	R. Yates	412,223	Oct. 15	1534	401	49	214
Pulverizing-machine	J. J. Bondman	416,253	Dec. 3	145	40	49	1397
Pulverizing-machine	W. H. Coward	413,378	Oct. 22	2394	620	49	484
Pulverizing-machine. Rotary	J. J. Bondman	416,252	Dec. 3	141	40	49	1396
Pump	E. S. Balcock	412,942	Oct. 15	1706	445	49	345
Pump	J. Bean	411,667	Nov. 5	752	194	49	888

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. &c.	Vol.	Page.
Pump.....	F. Cavallaro.....	415,497	Nov. 19	3042	530	49	1147
Pump.....	J. O. Davis.....	412,480	Oct. 8	1047	367	49	308
Pump.....	W. Turner.....	413,435	Oct. 8	952	350	49	194
Pump. Air.....	A. P. Massey.....	418,353	Dec. 31	3336	871	49	2054
Pump and barrel attachment. Hand.....	J. W. McKinley.....	418,469	Dec. 31	3502	917	49	3058
Pump and measuring-tank. Oil.....	H. F. McKenzie.....	416,735	Dec. 10	875	236	49	1530
Pump attachment.....	W. W. Horr.....	413,629	Oct. 29	3795	727	49	575
Pump. Compressor.....	E. Peanay.....	416,071	Nov. 26	2924	702	49	1334
Pump. Double-acting.....	C. Harwick.....	411,810	Oct. 1	48	14	49	13
Pump. Double-acting.....	W. B. Jacobs.....	416,035	Nov. 26	2868	750	49	1323
Pump for condensing-engines. Air and feed-water.....	J. A. Shepard.....	413,048	Oct. 1	388	100	49	78
Pump. Force.....	E. A. Heath and J. May.....	414,044	Oct. 29	3349	873	49	688
Pump governor. Automatic.....	J. A. Steininger.....	417,112	Dec. 10	1430	388	49	1659
Pump. Lift.....	C. A. Holland.....	413,501	Dec. 8	1059	376	49	214
Pump-lining. Metallic.....	E. C. Stoler.....	414,022	Oct. 29	3330	866	49	683
Pump. Duplex force.....	W. H. Grove.....	416,034	Nov. 26	3066	740	49	1334
Pump. Oil-well.....	F. Osborn.....	414,820	Nov. 12	972	252	49	939
Pump. Metallic lift.....	G. J. Keller.....	418,191	Dec. 31	3065	809	49	2004
Pump-rod. Elastic.....	J. F. Loomis.....	416,229	Dec. 3	112	32	49	1390
Pump. Rotary.....	F. G. Sargent.....	413,684	Oct. 29	3217	733	49	578
Pump. Rotary steam.....	E. I. Nichols.....	413,830	Oct. 29	3022	787	49	618
Pump. Rotary.....	J. S. Fowler.....	414,513	Nov. 5	508	129	49	843
Pump. Rotary steam.....	A. W. White.....	417,961	Dec. 24	3718	716	49	1925
Pump. Rotary.....	J. Maslin.....	416,172	Dec. 3	57	12	49	1376
Pump. Steam.....	F. C. Olin.....	415,055	Nov. 12	1325	346	49	1008
Pump-valve.....	F. C. Wilson.....	418,101	Dec. 24	3939	769	49	1966
Pumps. Valve-motion for steam.....	J. J. Tonkin.....	414,856	Nov. 12	1184	300	49	980
Pumping-engine. Steam.....	F. Lansberg.....	415,520	Nov. 19	4072	537	49	1154
Pumping-engine. Steam.....	C. L. Mahnieke.....	414,156	Oct. 29	3517	915	49	723
Pumping oil-wells. Apparatus for.....	G. Allen.....	416,206	Dec. 3	92	24	49	1364
Pumping rig. Connecting device for well.....	E. C. Cover.....	419,130	Oct. 1	511	146	49	103
Punch. Check.....	S. M. Levy.....	416,929	Dec. 10	1155	310	49	1066
Punch. Check.....	F. W. Smith, Jr., and S. S. Williamson.....	413,575	Oct. 22	2647	687	49	535
Punch. Combined power and hand.....	D. Warner.....	415,286	Nov. 19	1698	449	49	1080
Punch. Hand.....	S. Francis.....	415,836	Nov. 26	2560	668	49	1257
Punch-holder.....	A. Christie.....	418,664	Dec. 31	3717	971	49	2132
Punch. Marking.....	L. Riley.....	413,644	Oct. 29	3039	792	49	672
Punch, shears, and saw-gummers. Combined.....	E. Allen.....	416,489	Dec. 10	1155	310	49	1066
Punching and cutting machines and in cutting out generally. Blocks used as beds in.....	P. J. Simolin.....	412,802	Oct. 15	1507	392	49	308
Punching and eyeletting machine.....	A. Garrett and G. Wehater.....	413,752	Oct. 29	2910	757	49	597
Punching and feeding blanks. Process of and apparatus for.....	F. Holz.....	412,618	Oct. 8	1339	322	49	249
Punching machine. Check.....	A. Campbell.....	413,434	Oct. 29	2446	635	49	496
Punching machine receiving-box.....	W. W. Russell.....	413,150	Oct. 15	2019	526	49	407
Punching or striking machine. Coin-operated.....	G. F. W. Schultze.....	414,330	Nov. 5	223	56	49	783
Puzzle.....	G. E. Ely.....	412,845	Oct. 15	1563	407	49	319
Puzzle.....	A. H. Dunn.....	416,258	Dec. 3	159	45	49	1399
Puzzle.....	M. N. Jones.....	413,750	Oct. 29	2916	759	49	588
Puzzle.....	O. M. Morse.....	412,647	Oct. 8	1251	334	49	258
Puzzle.....	H. L. Motter.....	414,946	Nov. 12	1922	390	49	988
Proxylene base. Ornamenting articles having a.....	C. L. Rice.....	416,244	Dec. 3	280	76	49	1436
Proxylene. Manufacturing.....	J. G. Jarvis.....	417,727	Dec. 24	3263	823	49	1837
Rack.....	R. C. Schupphaus and M. T. White.....	418,237	Dec. 31	3149	825	49	2017
Rack. See Blackboard crayon-rack. Feed-rack. Handle-rack. Brick-drying rack. Hay-rack. Cloth-rack. Lace-exhibiting rack. Crib-rack. Pencil-rack. Display-rack.....							
Rack-and-pinion mechanism.....	P. M. Macdonald.....	413,285	Oct. 22	2236	580	49	456
Racket holder and press.....	G. P. C. Holmes.....	415,242	Nov. 19	1728	465	49	1098
Radiator.....	J. T. Broadner.....	412,295	Dec. 31	3234	883	49	2066
Radiator.....	E. Gurney, C. Levey, and C. W. Peniston.....	418,011	Dec. 24	3795	737	49	1941
Radiator-loops. Machine for tapping.....	H. H. Taylor.....	416,517	Dec. 3	548	148	49	1478
Rail-chair.....	G. E. De Grange.....	416,580	Dec. 3	644	175	49	1498
Rail-chair.....	M. W. Thomson.....	413,681	Oct. 8	1351	340	49	988
Rail-joint.....	E. P. Killinger and J. U. Wolfe.....	413,067	Oct. 15	1854	43	49	381
Rail-joint.....	S. B. Kinard, J. B. McKinley, and J. R. Thaxton.....	413,257	Oct. 29	3059	797	49	625
Rail-joint.....	E. Long.....	413,622	Oct. 22	2792	706	49	550
Rail-joint.....	I. Lynd.....	418,374	Dec. 31	3364	879	49	2059
Rail-joint plate.....	I. S. McGiehan.....	413,454	Oct. 22	2477	643	49	501
Rail-joints. Spring truss-support for.....	R. Long.....	413,347	Oct. 22	2338	605	49	472
Rails. Machine for curving and straightening steel.....	M. Roeniespiess and M. Flynn.....	418,229	Dec. 31	3136	822	49	2014
Railway and car. Elevated cable.....	A. J. Grinnell.....	416,220	Dec. 3	90	22	49	1388
Railway appliances. Pneumatic system for operating.....	J. Wayland and J. S. Baldwin.....	416,098	Dec. 3	814	222	49	1531
Railway block-signals. Electric danger-alarm for.....	J. H. Hunter.....	417,188	Dec. 10	1537	418	49	1682
Rail way-brake shoe.....	E. F. Whalen, C. W. Case, and A. O. Gardner.....	412,572	Oct. 8	1152	302	49	234
Railway. Cable.....	H. A. Pierce.....	414,921	Nov. 12	973	252	49	928
Railway-conductors. Connector for.....	T. E. Adams.....	416,244	Dec. 3	197	52	49	1407

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. &	Vol.	Page.
Railway conduit and current-plow. Electrical.....	J. W. Reno.....	412,666	Oct. 8	1304	{ 341	49	262
Railway conduit. Electric.....	C. P. Poole.....	413,731	Oct. 29	2922	{ 751	49	591
Railway conduit. Electric.....	E. Thomson.....	413,394	Oct. 22	2949	{ 584	49	458
Railway-construction machine.....	D. D. Stewart.....	418,083	Dec. 24	2906	{ 763	49	1061
Railway-contact. Electric.....	P. O. Blackwell.....	417,974	Oct. 29	3361	{ 875	49	691
Railway-crossing gate.....	J. W. Trammell.....	416,043	Nov. 26	2875	{ 752	49	1929
Railway crossings. Signal device for cable.....	G. H. Wright.....	413,120	Oct. 15	1973	{ 514	49	398
Railway-curves. Safety and anti-friction device for.....	J. H. Pendleton and A. Bryson, Jr.....	415,556	Nov. 19	2139	{ 556	49	1168
Railway. Electric.....	L. Daft.....	412,605	Oct. 8	1310	{ 318	49	244
Railway. Electric.....	R. M. Hunter.....	413,604	Oct. 22	2699	{ 702	49	545
Railway. Electric.....	R. M. Hunter.....	414,049	Oct. 29	3357	{ 875	49	690
Railway. Electric.....	H. W. Lihney.....	418,373	Dec. 31	3662	{ 877	49	3059
Railway. Electric.....	F. J. Sprague and P. F. O'Shaughnessy.....	414,172	Oct. 29	3541	{ 924	49	728
Railway. Elevated.....	E. V. Johnson.....	418,189	Dec. 31	3682	{ 899	49	2003
Railway. Elevated.....	A. Rodgers and G. Mee.....	414,295	Nov. 12	981	{ 253	49	941
Railway. Elevated suspension.....	L. Johnston.....	415,909	Nov. 19	1529	{ 407	49	1057
Railway foot-guard.....	T. A. Griffin.....	414,210	Nov. 5	52	{ 11	49	
Railway-frog.....	W. C. Meeker.....	411,867	Oct. 1	135	{ 35	49	28
Railway-frog.....	J. T. Richardson.....	417,506	Dec. 17	2926	{ 540	49	1785
Railway-frog.....	A. A. Strom.....	414,435	Oct. 29	3466	{ 900	49	713
Railway-frog.....	A. A. Strom.....	414,137	Oct. 29	3467	{ 901	49	713
Railway-frog.....	A. A. Strom.....	416,689	Dec. 3	893	{ 219	49	1529
Railway-frog.....	A. A. Strom.....	416,690	Dec. 3	894	{ 219	49	1529
Railway-frog.....	A. A. Strom.....	416,691	Dec. 3	895	{ 220	49	1529
Railway-frog clamp.....	A. GHpa.....	417,761	Dec. 24	2945	{ 645	49	1875
Railway-gate.....	J. T. Carter.....	418,108	Dec. 24	2948	{ 772	49	1908
Railway gate or signal.....	J. A. McGill.....	417,364	Dec. 17	1812	{ 487	49	1743
Railway-gates. Separable electric conductor for.....	F. E. Fowler.....	415,710	Nov. 30	3382	{ 821	49	1223
Railway-joint.....	A. Bagley.....	416,150	Dec. 3	3	{ 3	49	1949
Railway-passenger-service register.....	L. J. Carter.....	416,991	Nov. 10	1228	{ 336	49	1692
Railway pulley. Cable.....	J. Walker.....	414,614	Dec. 5	670	{ 175	49	873
Railway-rail.....	J. R. Hakleman.....	413,053	Oct. 15	1869	{ 489	49	377
Railway-rail.....	H. W. Lihney.....	412,192	Oct. 1	596	{ 155	49	119
Railway-rail.....	H. W. Lihney.....	412,636	Oct. 8	1363	{ 329	49	954
Railway-rail.....	H. W. Lihney.....	414,022	Oct. 29	3381	{ 879	49	696
Railway-rail and chair.....	H. W. Lihney.....	412,637	Oct. 8	1364	{ 330	49	955
Railway-rail brace.....	L. McElroy.....	417,499	Dec. 17	2914	{ 538	49	1722
Railway-rail clamp.....	R. Forsyth.....	411,958	Oct. 1	263	{ 68	49	53
Railway-rail fastening.....	W. B. Danahy.....	414,779	Nov. 12	912	{ 336	49	927
Railway-rail fastening.....	F. X. Owensby.....	412,370	Oct. 8	896	{ 225	49	178
Railway-rail fastening.....	W. Salfisbury.....	412,797	Oct. 15	1501	{ 391	49	307
Railway-rail joint.....	J. M. and S. B. Moody.....	414,239	Nov. 5	92	{ 21	49	756
Railway-rail joint.....	R. P. Morgan.....	415,739	Dec. 24	2933	{ 697	49	1861
Railway-rail joint.....	D. Rohlfing.....	415,422	Nov. 19	1908	{ 497	49	1139
Railway-rail joint.....	J. W. Walsh.....	414,348	Nov. 5	247	{ 62	49	738
Railway-rail joint.....	J. W. Walsh.....	415,079	Nov. 12	1358	{ 354	49	1015
Railway-rail or other joint.....	A. J. and G. W. Curry.....	415,290	Nov. 19	1708	{ 443	49	1092
Railway-rail. Street.....	H. W. Lihney.....	414,061	Oct. 29	3381	{ 879	49	696
Railway-rail support.....	E. S. M. Ford.....	418,092	Dec. 24	2784	{ 734	49	1938
Railway-rail support.....	J. M. Robbins.....	412,000	Oct. 1	318	{ 83	49	65
Railway-rail tie.....	R. Jones.....	417,426	Dec. 17	1893	{ 507	49	1759
Railway-rail tie. Metallic.....	J. Caseley.....	416,396	Dec. 3	368	{ 98	49	1442
Railway-rails. Adjustable clamp-joint for.....	A. J. Moxham.....	413,956	Oct. 29	3214	{ 839	49	600
Railway-rails. Constructing railway cross-ties of.....	A. Durand.....	415,032	Nov. 12	1291	{ 337	49	1001
Railway-rails in chairs. Wedge or key for securing railway-rails into flat plates. Mechanism for converting.....	T. Despiant.....	414,878	Nov. 12	1071	{ 275	49	967
Railway-rails. Tie and clamp for.....	A. Durand.....	415,031	Nov. 12	1289	{ 336	49	1001
Railway-rails. Two-part chair for.....	F. Rohert and E. P. Eastwick, Jr.....	414,921	Nov. 12	1130	{ 284	49	969
Railway semaphore-signal.....	H. S. Gongzhonr.....	414,153	Oct. 29	3514	{ 914	49	723
Railway service. Trolley for electric.....	G. W. Reiff.....	416,074	Nov. 26	2928	{ 763	49	1335
Railway shoe-brake.....	A. Anderson.....	412,021	Oct. 1	337	{ 141	49	109
Railway-signal.....	L. Trapp.....	413,213	Oct. 22	3121	{ 591	49	458
Railway-signal.....	J. D. Berry.....	418,155	Dec. 31	3632	{ 766	49	1993
Railway-signal.....	K. Black and C. M. Havey.....	413,800	Oct. 29	2961	{ 777	49	610
Railway-signal.....	L. W. Loy and R. O'Toole.....	417,258	Dec. 17	1639	{ 444	49	1711
Railway-signal apparatus.....	G. N. Reiff.....	418,646	Dec. 3	742	{ 201	49	1517
Railway-signal. Automatic.....	G. D. Greenwood and J. G. Jory.....	417,022	Dec. 10	1290	{ 353	49	1633
Railway-signal. Automatic.....	A. B. Snyder.....	414,337	Nov. 5	59	{ 2	49	786
Railway-signal. Automatic.....	D. Jr. and P. H. Vinton.....	414,462	Nov. 5	434	{ 110	49	827
Railway-signal. Electric.....	W. W. Frith.....	416,406	Dec. 3	379	{ 101	49	1445
Railway-signal. Electric.....	W. P. Kookney.....	414,645	Nov. 5	714	{ 185	49	81
Railway-signal. Electric.....	W. P. Kookney.....	414,774	Nov. 12	902	{ 222	49	925
Railway-signal. Electric.....	E. C. Wiley.....	418,258	Dec. 31	3175	{ 833	49	3022
Railway-signal. Electro-magnetic.....	D. S. McElroy.....	413,410	Oct. 22	2421	{ 624	49	490
Railway slot-closer.....	S. F. Lasker.....	414,327	Nov. 5	274	{ 17	49	733
Railway-spike.....	W. D. Thurmond and R. M. Goodwyde.....	414,092	Oct. 29	3418	{ 888	49	1903
Railway-spike.....	H. M. Walkmann.....	412,436	Oct. 8	952	{ 251	49	194

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date	Monthly volume.		Official Gazette.	
				Spec.	Dec.	Vol.	Page
Railway-station signal	B. F. Freeland	413,600	Oct. 32	2694	700	49	544
Railway steam heating pipes. Coupling for	R. I. Hampton	414,640	Nov. 5	705	153	49	880
Railway. Street	H. W. Libbey	414,060	Oct. 29	3381	879	49	605
Railway-switch	C. R. Daellenbach	417,156	Dec. 10	1494	407	49	1673
Railway-switch	J. M. Kincade	417,427	Dec. 17	1894	507	49	1759
Railway-switch	J. E. Robinson	414,587	Nov. 5	636	163	49	805
Railway-switch	J. H. Williams	413,594	Oct. 29	2650	696	49	541
Railway-switch	J. E. Wolfe	413,908	Oct. 1	328	87	49	67
Railway-switch	D. Donovan and J. Geisenheimer	416,449	Dec. 3	442	130	49	1458
Railway-switch. Electrically-operated	D. S. McElroy	413,412	Oct. 22	2423	629	49	491
Railway-switch lock	N. Newman	411,866	Oct. 1	316	82	49	64
Railway-switch. Portable	P. G. Johnson	413,186	Oct. 22	3077	541	49	438
Railway-switch stand	C. Atkins	414,133	Oct. 29	3475	903	49	715
Railway-switch. Street	J. H. Williams	413,145	Oct. 15	2011	524	49	405
Railway-switch. Street	J. H. Williams	413,592	Oct. 29	3077	695	49	541
Railway system	C. B. Askew	413,553	Oct. 22	2679	635	49	541
Railway system. Electric	M. Wheless	413,158	Oct. 22	2041	531	49	417
Railway system. Elevated	E. M. Boynton	413,637	Oct. 22	2745	711	49	556
Railway system. System of supplying currents to electric	E. M. Boynton	413,610	Oct. 22	2708	703	49	548
Railway systems. System of supplying currents to electric	C. J. Van Depoele	417,122	Dec. 10	1440	392	49	1663
Railway-tie	T. F. Thomas	416,081	Nov. 26	2944	761	49	1337
Railway tie and chair. Metallic	R. Boyer	413,158	Dec. 31	3636	797	49	1903
Railway tie, chair, and clamp	C. F. Z. Caraciat	416,050	Nov. 26	2889	755	49	1337
Railway-tie. Metallic	R. Forsyth	411,959	Oct. 1	264	68	49	54
Railway-tie. Metallic	W. F. Partridge and W. J. McCutcheon, Jr.	416,052	Dec. 24	2854	751	49	1932
Railway time-signal	E. Fontaine	413,825	Oct. 29	3015	785	49	616
Railway time-signal	E. Fontaine	413,932	Oct. 29	3177	830	49	633
Railway time-signal	J. A. Smith and V. B. Giddings	417,749	Dec. 24	2596	631	49	1863
Railway time-signal	J. Wayland	413,053	Oct. 29	384	102	49	79
Railway-track	J. H. Clarke	415,092	Nov. 12	1374	359	49	1018
Railway-track appliance	A. A. Strom	415,986	Nov. 26	2787	730	49	1307
Railway tracks. Device for driving cattle from	W. J. Burke	413,397	Dec. 31	3396	849	49	2066
Railway tracks. Means for maintaining the gage of	E. A. Jenks	413,360	Oct. 6	701	185	49	145
Railway train-orders, &c. Operating	A. M. Mezier	413,361	Oct. 22	2186	570	49	446
Railway train-signal	D. S. McElroy	413,409	Oct. 22	2420	627	49	490
Railway-trains. Protecting	J. I. Conklin	416,713	Dec. 10	1432	329	49	1545
Railway-vehicles. Rubbing-iron for	W. Wright	414,745	Nov. 12	865	234	49	1024
Railway-vehicles. Wheel for	W. Stroudley	415,745	Nov. 26	2428	634	49	1322
Railway wear-plates and base	L. Blackstone	413,609	Oct. 22	2706	703	49	547
Railways. Automatic safety-switch for	J. H. Harvey	413,396	Oct. 22	2102	622	49	486
Railways. Device for suspending electric conductors for electric	T. E. Adams	413,818	Oct. 29	3067	783	49	614
Railways. Device for wire-cable	F. E. Culver	414,681	Nov. 12	777	901	49	901
Railways. Drum for cable	R. Walker	414,958	Nov. 12	1157	310	49	980
Railways. Electric heating apparatus for electric	F. W. Plummer	417,596	Dec. 24	2847	619	49	1912
Railways. Means of access to a number of surface, elevated, or underground	R. R. Hazard	413,942	Oct. 29	3195	834	49	656
Railways. Operating electric	E. E. Ries	417,338	Dec. 17	1754	473	49	1733
Railways. Operating mechanism for turn-tables on cable street	G. C. Watriss and L. Heynemann	418,096	Dec. 24	2922	707	49	1965
Railways. Rack-rail for mountain	H. R. Ludwig	413,827	Oct. 29	3019	786	49	617
Railways. Rail-supporting bar for street	J. D. Reed	417,223	Dec. 17	1682	455	49	1720
Railways. Stock-gate for	F. J. Plummer	417,248	Dec. 17	1684	440	49	1708
Railways. System of switching for conduit electric	C. J. Van Depoele	417,151	Dec. 10	1434	391	49	1662
Railways. Trolley for electric	J. M. Rema	414,553	Nov. 5	622	162	49	864
Rain-conductor. Automatic	J. A. W. Insti	415,109	Nov. 12	1396	365	49	1023
Rain or snow gage. Self-recording	S. P. Ferguson	417,357	Dec. 17	1801	485	49	1741
Rake							
See Drag-rake.	Lawn-rake.						
Hay-rake.							
Rake	J. T. Thompson	416,763	Dec. 10	912	246	49	1557
Rake and ground-leveler. Combined	O. H. Woodworth	415,590	Nov. 12	2302	575	49	1919
Rake and tedder. Combined	A. Iake	417,940	Dec. 10	1316	360	49	1629
Ram. Hydraulic	R. H. Isbell	415,132	Dec. 24	2991	785	49	1976
Ram. Tunneling	L. Beecher	413,384	Oct. 22	2345	618	49	482
Rand-trimmer	W. H. Plummer	416,011	Nov. 26	2822	739	49	1314
Range-finder. Naval	T. Nordenfolt and C. G. Middelboe	418,819	Nov. 12	970	251	49	839
Ratchet-drill	G. and J. L. Jones	413,509	Oct. 8	1069	279	49	316
Ratchet-drill frame	E. E. Heinhach	415,198	Nov. 19	1565	403	49	1054
Ratchet-twister	L. H. Young	417,211	Dec. 10	1574	336	49	1629
Rattan furniture	E. L. Taft	414,784	Nov. 12	918	238	49	828
Rattlers or other machinery. Mechanism for driving	C. A. Bauer	416,964	Dec. 10	1219	334	49	1630
Rawhide. Cementing	F. Latallp	416,370	Dec. 3	329	86	49	1434
Razor-brace	F. R., and O. Kampfe	414,547	Nov. 5	659	169	49	832
Razor. Safety	R. M. Keating	416,461	Dec. 3	458	125	49	1462
Razor. Safety	H. B. Leach	416,118	Nov. 26	3004	782	49	1349
Razor-strop	L. C. Nichols	413,540	Oct. 22	2569	673	49	535
Razor-strop	L. C. Tower	412,938	Oct. 12	1749	468	49	344
Razor-stopping device	A. D. Ray	414,447	Nov. 5	614	104	49	823
Reamer. Expandable	T. Long	417,360	Dec. 17	1809	486	49	1743
Recepting bills and severing coupons therefrom. Machine for	D. E. Felt	412,378	Oct. 8	876	228	49	178
Reclining-chair	G. W. Spurr	417,520	Dec. 17	2032	546	49	1729
Reclining-chair	W. S. Totall	413,377	Oct. 22	2377	615	49	480
Recorder							
See Cash-recorder.	Phonograph-recorder.						
Passenger-recorder. Vibration-recorder.							
Reduction machine. Gradual	J. M. Case	417,029	Dec. 17	2217	559	49	1821

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly Volume.		Official Gazette.	
				Spec.	Dr. &.	Vol.	Page.
Reel:							
See Awning-reel.	Hose-reel.						
Bolting-reel.	Paper-reel.						
Drilling-machine	Ribbon-reel.						
and reel.	Sand-reel.						
Fishing-reel.	Ticket-reel.						
Harvester-reel.	Warping-reel.						
Harvesting-machine	Wire-red-reeling reel.						
Reel.	J. E. Mandeville.	417,060	Dec. 10	1350	370	49	1645
Reeling machine. Yarn.	H. Hardwick, A. M. Ulmer, and F. Fowler.	413,055	Oct. 15	1871	468	49	378
Reflecting apparatus. Solar.	W. Calver.	412,724	Oct. 15	1402	367	49	290
Reflector for locomotive head-lights.	E. C. Glazier.	414,897	Nov. 12	955	{ 347 348 }	49	936
Reflector or mirror.	C. H. Koyl.	418,136	Dec. 24	2998	{ 49 49 }	49	1977
Refractory composition.	T. B. Kerr.	415,170	Nov. 12	1530	{ 317 318 }	49	1040
Refrigerating device for box-cars.	W. J. Arnold.	416,825	Dec. 3	1198	52, 53	49	1407
Refrigerating machines. Compressor-pump for.	E. Penney.	416,922	Nov. 26	2925	763	49	1535
Refrigerator. Electric.	M. W. Dewey.	413,136	Oct. 15	1995	520	49	402
Refrigerator.	J. W. Egan.	417,414	Dec. 17	1876	503	49	1755
Refrigerator.	C. V. Hill.	418,060	Nov. 12	1113	287	49	965
Refrigerator.	F. E. Ranney.	414,907	Dec. 24	2864	753	49	1954
Refrigerator.	R. P. Steel.	413,578	Oct. 23	2633	698	49	536
Refrigerator car and chamber.	A. W. Zimmerman.	417,891	Dec. 24	2481	654	49	1889
Refrigerator. Vacuum.	B. N. J. Jacobs.	416,788	Dec. 10	950	256	49	1564
Regenerative furnace.	{ B. Swindell, S. R. Smythe, and J. W. Swindell. }	414,874	Nov. 12	1066	{ 273 274 }	49	956
Regenerating furnace for boilers.	W. Swindell.	413,691	Oct. 29	2832	738	49	369
Register:							
See Barber's chair regis- Grain or manure drill reg-							
ter.	ister.						
Berth-register.	Hot-air register.						
Billiard-register.	Mechanical register.						
Cash-register.	Railway-passenger-serv-						
Door-register.	ice register.						
Fare-register.	Stamp-register.						
Register.	L. H. Solon and J. McMahon.	415,982	Nov. 26	2782	738	49	1305
Registering and indicating device for mines, &c.	W. F. Bath.	412,586	Oct. 8	1178	300	49	239
Regulator:							
See Compressor-regula- Feed-water regulator.							
tor.	Gas-regulator.						
Draft-regulator.	Gas-pressure regulator.						
Electric regulator.	Pressure-regulator.						
Electric-current	Speed-regulator.						
regulator.	Temperature-regulator.						
Electric-machine	Tooth-regulator.						
regulator.	Valve-regulator.						
Electric-motor regu- Watch-regulator.							
lator.	Windmill-regulator.						
Feed-regulator.							
Rein-button.	G. W. Tallman.	415,005	Nov. 12	1254	338	49	994
Rein-support.	W. C. Valen.	414,849	Nov. 12	1026	245	49	949
Repository. Mechanical.	J. J. Fowler.	413,851	Oct. 29	3047	794	49	923
Resawing-machine.	E. Benjamin.	411,975	Oct. 1	284	73, 74	49	58
Retort-ld.	F. C. Prindle.	416,855	Dec. 10	1049	282	49	1584
Revolver.	J. T. Smith.	413,975	Oct. 29	3242	847	49	665
Revolving chair.	F. D. Kramer and G. Louys.	412,513	Oct. 8	1074	280	49	917
Revolving drier for desiccating brewers' grains, &c.	W. P. Preston, F. J. Hudner, and J. J. Kelley.	412,539	Oct. 8	1105	280	49	225
Rheostat.	M. J. Wightman.	411,947	Oct. 1	251	65	49	51
Ribbed-cylinder pattern.	J. J. Hogan.	416,333	Dec. 3	966	70	49	1422
Ribbon-holder.	O. G. Smith.	415,423	Nov. 19	1909	497	49	1121
Ribbon-reel.	W. C. Peacock and J. W. Cronan.	413,545	Oct. 22	2603	675	49	325
Rifles. Cartridge-magazine attachment for.	A. Colley.	413,632	Oct. 15	1841	{ 481 482 }	49	372
Ring:							
See Flame-lane ring. Nose-ring.							
Ring or ball for suspending or lifting vessels.	A. Taplin.	413,981	Oct. 29	3251	849	49	667
Rivers or other waters. Means for controlling the flow of navigable.	J. C. Coult.	411,979	Oct. 1	280	75	49	59
Rivet.	H. H. Cummings.	414,682	Nov. 12	778	301	49	901
Rivet.	L. O. Dion.	412,343	Oct. 8	678	179	49	141
Rivet.	J. L. Thomson.	416,694	Dec. 3	808	320	49	1530
Rivet-making machine.	H. H. Cummings.	414,683	Nov. 12	779	{ 302 303 }	49	901
Rivet-setting machine.	F. R. White.	416,282	Dec. 3	194	51, 52	49	1406
Rivets, &c., in jails, &c. Means for concealing.	W. S. Hall.	416,727	Dec. 10	948	256	49	1564
Rivets. Manufacture of hollow.	H. H. Cummings.	414,755	Nov. 12	879	297	49	921
Rivets. Manufacture of hollow.	I. F. Peck.	415,298	Nov. 19	1720	448	49	1065
Riveting.	G. D. Strickler.	415,885	Nov. 26	3025	687	49	1271
Roads. Machine for making, repairing, and clearing.	J. W. Taft and E. L. Lathrop.	411,939	Oct. 1	2935	59, 60	49	48
Rock-drill.	G. M. Clark.	418,554	Dec. 31	3236	{ 951 952 }	49	2116
Rock-drill.	J. Cody.	418,449	Dec. 31	3473	{ 908 909 }	49	2082
Rock-drill.	J. F. Dittman.	417,004	Dec. 10	1257	{ 345 346 }	49	1628
Rock-drilling machine.	T. B. Withers and M. Edgar, Jr.	415,685	Dec. 17	2201	586	49	1282
Rocking-chair.	G. F. Hall.	413,149	Oct. 15	2004	592	49	404
Rocking-chair. Platform.	J. W. Brown.	413,273	Oct. 22	3204	575	49	450
Rod:							
See Fishing rod. Sheet-metal rod.							
Pump-rod.							
Roller. Detachable and adjustable.	J. L. Delany.	411,789	Oct. 1	23	8	49	8

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Roller-mill	J. Dawson	416,904	Dec. 10	1119	305	49	1599
Roller-mill adjustment	P. T. Couch	417,409	Dec. 17	1868	501	49	1754
Rolling car-wheels. Machine for	T. W. Bean. (Reissue)	11,046	Dec. 24	3015	790	49	1980
Rolling forge-bars	J. Guest	416,675	Dec. 3	780	316	49	1587
Rolling girder-rails. Rolls for	H. W. Thomas	417,956	Dec. 24	2712	714	49	1923
Rolling-mill	P. F. Hanley	413,141	Oct. 15	2005 { 922 } 231		49	404
Rolling-mill	P. F. Hanley	417,484	Dec. 17	1989		49	1778
Rolling-mill	J. Kennedy and H. Aiken	412,832	Oct. 15	1578 { 411 } 412		49	321
Rolling-mill for car-wheels	B. F. Rittenhouse	412,415	Oct. 8	929	244	49	138
Rolling-mill plants. Heating-furnace for	C. H. Morgan	416,907	Nov. 26	2816	738	49	1313
Rolling mill. Rod	A. J. Day and H. Roberts	412,915	Oct. 15	1672	437	49	338
Rolling mill. Rod	G. Jansson	415,784	Nov. 26	2487	649	49	1243
Rolling mill. Tire	J. Munton	416,797	Dec. 10	960		49	1566
Rolling mills. Reeling mechanism for wire-rod	C. H. Morgan	416,940	Dec. 10	1168	319	49	1609
Rolling seamless tubing from hollow ingots. Machine for	W. H. Appleton	412,011	Oct. 1	335	88, 89	49	68
Rolling seamless tubing. Machine for	W. H. Appleton	412,010	Oct. 1	330	88	49	67
Rolling seamless tubing. Machine for	W. H. Appleton	412,012	Oct. 1	339	89	49	69
Rolling tires	J. Munton	416,798	Dec. 10	963	261	49	1567
Roofing-sheet	W. W. Kenwick	418,569	Dec. 31	3215	846	49	2024
Roofing fabric	H. W. Johns	415,519	Dec. 31	3557	936	49	2107
Roofing. Metal	L. L. Sagendorph	417,947	Dec. 24	2700	711	49	1921
Roofing. Metallic	L. L. Sagendorph	412,043	Oct. 1	381	98	49	77
Roofing. Metallic	L. L. Sagendorph	417,946	Dec. 24	2698 { 710 } 637		49	1921
Roofing. Metallic	G. A. Turnbull	417,757	Dec. 24	2413		49	1866
Roofing, &c. Plastic compound for	J. I. Livingston and W. Griacum, Jr.	416,791	Dec. 10	953		49	1565
Roofing-sheet	H. W. Johns	418,569	Dec. 31	3663	958	49	2121
Roofing. Sheet-metal	F. E. Sagendorph	416,848	Dec. 3	385	77	49	1437
Roofing. Sheet-metal	F. E. Sagendorph	416,887	Dec. 3	301	219	49	1329
Roofing. Sheet-metal	T. C. Snyder and T. C. Belding	414,681	Nov. 5	745	192	49	887
Rope-clamp	J. Dow	418,555	Dec. 31	3638	951	49	2116
Rope or line holder	H. S. Hollister	415,169	Nov. 12	1329	394	49	1049
Rope or twine machines. Capstan-head feed-motion for	W. Hollingsworth	412,708	Oct. 8	1370	337	49	275
Rotary bolt	J. M. Case	417,630	Dec. 17	2920 { 590 } 391		49	1821
Rotary engine	W. P. Akers	414,759	Nov. 5	363	66	49	791
Rotary engine	J. K. Cook and C. S. Hinchman	414,192	Nov. 5	23	5	49	743
Rotary engine	J. M. Farmer	412,079	Oct. 1	433 { 112 } 513		49	87
Rotary engine	J. B. Harris	415,456	Nov. 19	1967	511	49	1192
Rotary engine	J. B. Rhodes	414,355	Nov. 5	114	36	49	760
Rotary engine	W. Webster	413,387	Nov. 19	1780 { 462 } 1403		49	1086
Rotary engine	G. H. Weston	417,792	Dec. 24	2422	629	49	1868
Rotary engine	D. Williamson	415,953	Nov. 26	2747	717	49	1928
Rotary engine	D. Williamson	415,954	Nov. 26	2749	718	49	1929
Rotary motor. Double-piston	H. P. Gaskill	414,694	Nov. 12	798	207	49	905
Rotary motor	A. McFarland	411,827	Oct. 1	77	21, 22	49	18
Rotary steam-engine	C. V. Martin	417,196	Dec. 10	1549 { 421 } 422		49	1684
Rowing-machine	T. J. Bigger	413,015	Oct. 15	1816 { 474 } 1475		49	367
Rowlock	G. W. Rogers	416,320	Dec. 3	198	35	49	1303
Rubber boot or shoe	E. F. Ayres	418,105	Dec. 24	2944	771	49	1968
Rubber-dam clamp and carrier	J. W. Ivory	412,622	Oct. 8	1247	325	49	251
Rubber. Restoring	N. C. Mitchell	418,044	Dec. 24	2939		49	1950
Rubber-sheeting mill	N. C. Mitchell	418,045	Dec. 24	2941	741	49	1950
Rubber-stock cleaner. Magnetic	N. C. Mitchell	418,041	Dec. 24	2935	742	49	1949
Rubber stock. Conveying device for	N. C. Mitchell	418,042	Dec. 24	2937	748	49	1949
Rubber stock. Vessel or tank for defiberizing	N. C. Mitchell	418,043	Dec. 24	2938	749	49	1949
Rubbing-machine	D. Dedde	418,696	Dec. 31	3718	971	49	2132
Ruffling and gathering fabrics. Machine for	G. W. Weiss	417,455	Dec. 17	1933	516	49	1496
Rule and protractor. Combined	H. Horn	415,944	Nov. 26	2731	714	49	1925
Rule. Pocket folding	A. H. Dauchy and P. Roberts	414,877	Nov. 12	1069	275	49	956
Rule. Flexible	B. H. Toquet	415,904	Oct. 15	1653 { 421 } 422		49	335
Ruling device for slates, &c.	A. G. W. Will	413,591	Oct. 22	2976	694	49	1540
Ruling machine. Slate	S. E. Nutting	418,651	Dec. 31	3785	987	49	2144
Rambling-machine	M. J. Smith	415,744	Nov. 26	2427	634	49	1322
Running-gear	G. J. Block	416,555	Dec. 3	614	164	49	1496
Rye. Rolled	E. B. Mower	412,323	Oct. 8	106		49	320
Sad-iron	G. Heidel	414,836	Nov. 12	995	257	49	944
Sad-iron	A. Rosa	417,285	Dec. 17	1684	455	49	1730
Sad-iron heater	D. E. Bangs	412,565	Oct. 8	1173	309	49	278
Sad-iron holder	R. A. Burns	417,328	Dec. 17	1349	414	49	1704
Sad-iron. Self-heating	J. B. Curl	416,156	Dec. 3	11	3	49	1371
Sad-iron. Self-heating	L. Stockstrom	417,601	Dec. 17	2179	579	49	1813
Sad-iron. Burner for self-heating	G. Heidel	415,716	Nov. 26	1888	653	49	1334
Saddle	J. D. Padgett	415,467	Nov. 19	1985	515	49	1336
Saddle-bags	J. D. Egger	413,501	Oct. 22	2547	658	49	1515
Saddle. Harness	H. H. Brandes	416,560	Dec. 3	612	167	49	1492
Saddle. Harness	J. D. Braun	413,165	Oct. 22	2953	333	49	419
Saddle. Harness	S. K. Kutz	418,195	Dec. 31	3689	911	49	1989
Saddle. Harness	H. Leibe	412,516	Oct. 8	1077	291	49	818
Saddle. Riding	H. Ruwert	415,473	Nov. 19	1994	517	49	1138
Saddlers' stitching-horses. Attachment for	C. F. Shaw	418,865	Dec. 10	1064	296	49	1587
Safe	P. F. King	418,619	Dec. 31	3735 { 977 } 978		49	2135

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	De-g.	Vol.	Page.
Safe-alarm	A. D. Miller	415,413	Nov. 19	1889	692	49	1117
Safety-gate	J. H. Morse	417,740	Dec. 24	2355	627	49	1861
Sage-brush. Machine for destroying	W. D. Arnett	416,661	Dec. 3	767	910	49	1532
Sail-roofing apparatus	S. M. Kollinger	417,334	Dec. 17	1741	468	49	1730
Sail-rigging	C. T. Segar	413,246	Oct. 22	3166	564	49	1412
Salts and desulphurizing ores. Apparatus for decomposing metallic	P. H., Jr., and O. T. X. Adams	416,315	Dec. 3	245	64	49	1417
Salts and desulphurizing ores. Apparatus for use in decomposing metallic	P. H., Jr., and O. T. X. Adams	416,314	Dec. 3	243	63	49	1417
Salts and desulphurizing ores. Apparatus for use in decomposing metallic	P. H., Jr., and O. T. X. Adams	416,316	Dec. 3	247	64	49	1417
Sand-reel	D. J. Thayer	415,076	Nov. 12	1355	354	49	1014
Sandpapering-machine	A. H. Hatteberg	414,408	Nov. 5	336	125	49	800
Sandpapering-machine	E. Miller	413,785	Oct. 29	2990	772	49	696
Sandpapering-roller	J. S. Kenyon	414,115	Oct. 29	3454	897	49	711
Sash. Adjustable window	C. McGow	416,004	Nov. 26	2912	737	49	1312
Sash-balance	J. Bastian	416,307	Dec. 3	83	24	49	1365
Sash-bar. Metallic window	H. Schumann	415,968	Nov. 12	348	351	49	1012
Sash-cord guide	J. A. Burchard	413,692	Oct. 15	1428	475	49	370
Sash-cord guide	S. Palmer	412,658	Oct. 8	1295	338	49	261
Sash-cord guide	A. S. Schellinger	413,971	Oct. 29	3235	845	49	095
Sash-cord guide. Oilable	G. J. Kihn	416,030	Dec. 24	2825	745	49	1946
Sash-fastener	H. P. Bulloch and W. L. Grogan	413,898	Nov. 26	2645	623	49	1276
Sash-fastener	W. H. Cooley	416,336	Dec. 3	310	81	49	1420
Sash-fastener	W. Driscoll	413,419	Oct. 29	3045	794	49	023
Sash-fastener	K. Graburn	413,659	Oct. 29	2778	721	49	371
Sash-fastener	E. Horton	417,029	Dec. 10	1300	355	49	1635
Sash-fastener	J. W. Hosea	417,388	Dec. 17	1847	495	49	1749
Sash-fastener	H. D. James	417,468	Dec. 24	3575	678	49	1808
Sash-fastener	G. Kingsland	412,189	Oct. 1	592	154	49	119
Sash-fastener	I. T. Price	414,379	Nov. 5	610	159	49	861
Sash-fastener	H. C. Rose	417,580	Dec. 17	2160	575	49	1809
Sash-fastener	H. Schenck	418,073	Dec. 24	2889	750	49	1958
Sash-fastener	P. F. Schumann	413,971	Oct. 3	1765	461	49	357
Sash-fastener	P. F. Schumann	412,988	Oct. 15	1767	401	49	370
Sash-fastener	A. O. Shatsick	418,323	Dec. 31	3288	859	49	2045
Sash-fastener	J. Watson	413,355	Oct. 22	3245	608	49	474
Sash-holder	C. W. Bene	416,491	Dec. 3	450	113	49	1454
Sash-holder	M. Blue	412,067	Oct. 1	417	107	49	84
Sash-holder	W. L. Dempsey	413,262	Oct. 22	3259	611	49	477
Sash-holder	I. H. Malford	412,285	Oct. 8	738	192	49	152
Sash-holder	G. W. Powell	415,682	Nov. 26	2621	606	49	1270
Sash-holder	D. P. Resner	416,491	Dec. 3	741	201	49	119
Sash-holder	C. S. Seely and J. Curzon	418,075	Dec. 24	2991	759	49	1958
Sash-holder	F. W. Tucker	413,466	Oct. 22	2494	646	49	504
Sash-holder	J. E. Turney	415,590	Nov. 19	2194	572	49	1178
Sash-holder	H. S. Wadsworth and R. Hyde	412,312	Oct. 8	715	301	49	135
Sash holder and tightener. Combined	A. L. Wilkison	418,633	Dec. 31	3769	982	49	2140
Sash-lift	W. H. Fye	418,173	Dec. 31	3660	802	49	1999
Sash or blind holder	W. S. Holland	412,511	Oct. 22	3562	664	49	518
Sash. Window	A. L. Millan	416,491	Dec. 3	453	132	49	1466
Sash. Window	W. Wallace	416,198	Dec. 3	70	21	49	1352
Sashes. Manufacturing metallic cross-bars and rails for window.	W. Henderson	419,751	Oct. 15	1435	374	49	296
Satin-faced fabric	R. B. Morrell	413,234	Oct. 22	2592	672	49	524
Saw	G. N. Clemson	417,404	Dec. 17	1803	499	49	1732
Saw	B. F. Day	416,094	Nov. 26	2868	774	49	1342
Saw	J. H. Griffiths	413,733	Oct. 29	2913	758	49	597
Saw	A. Weyman	416,281	Dec. 3	194	51	49	1406
Saw-blade	G. W. Griffin	412,176	Oct. 1	374	150	49	116
Saw. Crosscut	E. C. Atkins	413,912	Oct. 15	1809	473	49	366
Saw. Crosscut	J. Fleisher	417,862	Dec. 24	2569	677	49	1896
Saw. Drag	J. H. Alcala	415,764	Nov. 26	2460	642	49	1238
Saw. Drag	A. G. H. Bostelmann	417,980	Dec. 24	2745	732	49	1001
Saw. Drag	R. Y. Macbeth and L. Gourdin	413,404	Oct. 22	2412	625	49	88
Saw-dfing device	H. O. Gadhery	415,345	Nov. 19	1627	490	49	1067
Saw-dfing machine	A. S. Parks	415,196	Nov. 12	1394	364	49	1063
Saw-frame. Oscillating	G. W. Bagley	417,337	Dec. 17	1995	537	49	1398
Saw-gage	G. M. Clendinning	415,023	Nov. 12	1279	334	49	999
Saw gage and jointer	R. E. Poindexter	417,477	Dec. 17	1673	433	49	1718
Saw-guard	T. H. Abernethy	417,618	Dec. 24	2552	672	49	1853
Saw-guard	C. W. Fisher and E. Munsel	417,635	Dec. 17	2229	542	49	822
Saw-guide	A. Goulding	418,177	Dec. 31	3666	904	49	2000
Saw-jointer	J. F. Coleman	416,397	Dec. 3	369	98	49	1442
Saw mill. Band	J. Paul	418,422	Dec. 31	3438	898	49	2075
Saw mill. Band	D. C. Prescott	416,012	Oct. 26	2923	740	49	1315
Saw-mill carriages. Mechanism for reciprocating	G. R. Ray	412,791	Oct. 15	1491	389	49	305
Saw-mill dog	J. H. Miner	416,337	Dec. 10	1168	319	49	1608
Saw-mill log-carriage. Mechanism for reciprocating	G. R. Ray	412,119	Oct. 1	478	132	49	96
Saw mill. Portable circular	J. C. and B. A. Lake	412,101	Oct. 1	458	119	49	92
Saw mills. Guard for circular	C. H. Stokes	417,304	Dec. 10	1564	425	49	1687
Saw mills. Planer attachment for	H. S. Parks	417,354	Dec. 10	1576	474	49	1894
Saw-scarfing machine	A. S. Parks	415,261	Nov. 19	1690	436	49	1079
Saw-set	J. Hilton	411,893	Oct. 1	173	44	45	35
Saw-set	H. Peter	413,089	Oct. 15	1919	501	49	1383
Saw-sharpening machine	R. B. Rich	416,748	Dec. 10	361	340	49	1533
Saw-swing	C. W. Fisher and E. Munsel	417,676	Dec. 17	2229	542	49	822
Saw-swinging device	C. Campbell	415,614	Nov. 19	2232	581	49	1185
Saw-table	J. M. Baker	415,435	Nov. 19	1925	501	49	1124

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. &c.	Vol.	Page.
Saw-teeth. Device for inserting.....	T. S. Disston.....	412,094	Oct. 1	359	93	49	72
Saw-tooth.....	W. E. Brooke.....	417,468	Dec. 17	1851	521	49	1771
Saw. Apparatus for lubricating gin.....	R. F. Spangenberg.....	416,079	Nov. 36	2942	766	49	1337
Saws. Forming teeth on cotton-gin.....	H. V. and C. F. Scattergood.....	415,066	Nov. 12	1342	350	49	1011
Saws &c. Mechanism for operating scroll.....	W. F. Barnes.....	413,475	Oct. 22	2506	649	49	507
Sawing front-stripe for decks. Machine for.....	W. Demme and A. Dierkes.....	417,730	Dec. 24	3256	617	49	1852
Sawing machine.....	W. Baptist.....	416,088	Nov. 26	2925	770	49	1340
Sawing machine.....	J. De Graff.....	413,361	Oct. 22	2397	621	49	485
Sawing machine.....	E. H. Hoyt.....	415,717	Nov. 26	3239	623	49	1224
Sawing machine. Barrel-head.....	J. A. Mumford.....	417,071	Dec. 10	1361	373	49	1648
Sawing machine brush attachment.....	J. Rohlsen.....	417,093	Dec. 10	1396	381	49	1655
Sawing machine. Cut-off.....	A. T. Linderman.....	411,935	Oct. 1	3215	56	49	45
Sawing machine. Fire-wood.....	A. Tanner.....	412,432	Oct. 8	947	249	49	199
Sawing machine. Portable.....	W. D. Gunn.....	417,173	Dec. 10	1519	413	49	1678
Sawing machine. Slab.....	A. T. Linderman.....	411,922	Oct. 1	3009	54, 55	49	43
Sawing machine. Wood.....	H. W. Paine.....	414,421	Nov. 5	3668	91	49	813
Scaffold.....	A. Miller.....	411,894	Oct. 1	73	80	49	17
Scaffold.....	R. O. Seat.....	415,323	Nov. 19	1590	413	49	1061
Scaffold-holder. Swinging.....	C. W. Fisher.....	414,634	Nov. 5	696	181	49	878
Scaffold. Portable.....	G. S. MacLaurin.....	417,078	Dec. 17	2286	606	49	1833
Scaffold-stand.....	T. Sizemith.....	412,969	Oct. 15	1769	462	49	358
Scale attachment. Grain.....	J. H. Shelley.....	413,871	Oct. 29	3088	804	49	631
Scale attachment. Weighing.....	J. Bird.....	417,700	Dec. 24	2323	805	49	1849
Scale for weighing railway-car and recording the weight thereof. Automatic.....	E. H. Amet.....	413,820	Oct. 29	3099	808	49	634
Scales. Beam.....	F. C. Hammond.....	410,361	Dec. 3	102	44	49	1400
Scales. Grain.....	C. H. Cooley.....	416,714	Dec. 10	845	230	49	1545
Scales. Platform.....	J. P. Steedman, T. Partridge, and A. Turnbull.....	413,372	Oct. 29	2645	686	49	335
Scales. Recording device for weighing.....	I. B. Sager.....	411,837	Oct. 1	95	25, 26	49	21
Scales. Wagon.....	B. F. Stein.....	416,761	Dec. 10	911	945	49	1557
Scales. Weighing.....	G. W. Craig.....	416,399	Dec. 3	370	98, 99	49	1443
Scales. Weighing.....	T. E. Jr., and H. B. Nye.....	414,343	Nov. 5	100	23, 24	49	738
Scales. Weighing.....	T. Sands.....	415,921	Nov. 19	1597	412	49	1061
Scales. Weighing.....	L. G. Spencer.....	415,824	Nov. 36	2540	604	49	1254
Scalloped ball-cushion.....	C. E. Bentley.....	414,748	Nov. 12	870	225	49	919
Scoop. Automatic weighing.....	J. O. Hebert.....	411,892	Oct. 1	172	44	49	35
Scoop. Potato.....	J. W. Side.....	412,049	Oct. 1	359	109	49	78
Scoop.....	J. Violes.....	411,879	Oct. 1	148	38	49	31
Scourer.....	J. C. Holloway and J. Frey.....	417,866	Dec. 24	2573	678	49	1897
See Grain-scourer. Wheat-scourer. Scouring, grinding, polishing, and emulating composition.....	W. Osborn.....	418,421	Dec. 31	3437	898	49	2075
Scow. Shifting deck for dumping.....	E. L. Clark and L. D. Howard.....	413,030	Oct. 15	1837	480	49	371
Scrap and grader. Road.....	J. C. Gordon.....	413,047	Oct. 15	1863	467	49	376
Scrap and wiper. Combined hoist.....	J. C. Gordon.....	414,522	Nov. 5	521	133	49	845
Scrap blades. Machine for bending road.....	C. Boeckh.....	414,007	Oct. 29	3294	829	49	677
Scrap blades, &c. Machine for grinding and polishing road.....	G. W. Taft.....	411,940	Oct. 1	239	61	49	48
Scrap. Dredging.....	G. W. Taft.....	411,839	Oct. 1	99	26, 27	49	22
Scrap. Road.....	T. Potter.....	412,538	Oct. 8	1105	290	49	225
Scrap. Road.....	G. Fry.....	412,749	Oct. 15	1424	372	49	294
Scrap. Road.....	E. Houts.....	412,620	Oct. 8	1243	324	49	350
Scrap. Wheel.....	T. Atchison.....	412,036	Oct. 1	371	95, 96	49	75
Scotch and hit-gage. Combined.....	O. E. Moats.....	412,394	Oct. 1	641	167	49	132
Screen.....	E. E. Doe.....	413,178	Oct. 22	3070	339	49	423
See Combination-screen. Shaking screen. Insect-screen. Window-screen.....	W. McCormack.....	413,392	Oct. 22	2100	546	49	429
Screw-cutting die.....	J. E. Woodbridge.....	413,701	Oct. 29	2946	742	49	284
Screw-cutting tool.....	K. Machke.....	417,374	Dec. 17	2139	570	49	1805
Screw-cutting tool.....	J. E. Woodbridge.....	413,357	Nov. 5	388	35	49	791
Screw-die.....	C. Leach.....	412,855	Oct. 15	1383	413	49	325
Screw-driver.....	T. E. Coplin.....	413,167	Dec. 31	3049	800	49	1996
Screw-driver.....	D. K. Hart.....	417,729	Dec. 24	2357	621	49	1856
Screw-driver.....	C. G. Teuhner.....	415,481	Nov. 19	2069	590	49	1142
Screw-driver.....	J. Weiss.....	414,619	Nov. 5	678	177	49	875
Screw-head covering.....	H. Ferguson.....	416,329	Dec. 3	363	69	49	1422
Screw-heads. Machine for slotting.....	C. F. Koper.....	415,472	Nov. 10	1092	516	49	1138
Screw-machine.....	G. Heyne.....	414,906	Nov. 12	1110	286	49	965
Screw machine. Wood.....	M. Bischoff.....	413,486	Oct. 22	2523	653	49	511
Screw machine. Wood.....	W. S. Dorman.....	416,584	Dec. 3	650	176	49	1499
Screw-tapping machine.....	F. H. Richards.....	415,846	Nov. 26	2570	672	49	1259
Screw-threading die.....	J. N. Severance.....	415,069	Nov. 12	1345	351	49	1012
Screw-threading machine.....	F. H. Richards.....	415,845	Nov. 26	2568	670	49	1269
Screw-threads. Apparatus for making spiral.....	H. H. Foreyth.....	412,082	Oct. 1	437	113	49	87
Screw. Wood.....	C. D. Rogers.....	413,968	Oct. 29	3230	844	49	604
Screws. Lathe attachment for making metal.....	J. N. Severance.....	413,870	Oct. 29	3082	803	49	630
Scuttle-light.....	J. Weiss.....	412,571	Oct. 8	1151	302	49	234
Scuttle-light.....	J. Zerfae and W. E. Stein.....	412,356	Oct. 8	845	220	49	172

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. &	Vol.	Page.
Seyth-fastener	G. S. Clow	415,905	Nov. 19	1654	437	49	1972
Seal	R. M. Moore	417,510	Dec. 17	2033	542	49	1746
Seal for seal-locks.	E. H. Lea and W. B. Marks	417,358	Dec. 17	1895	485	49	1741
Seal-locks	R. W. Gillespie	412,063	Oct. 1	439	114	49	88
Seal-locks	J. A. Kurtz	417,568	Dec. 17	2133	568	49	1804
Seal-locks	E. H. Lea and W. B. Marks	417,359	Dec. 17	1896	485	49	1741
Seal-locks	W. W. Martin	412,641	Oct. 8	1968	330	49	355
Seal-locks	W. P. Moore	418,583	Dec. 31	3684	902	49	3125
Seal-locks	C. J. Smith	418,627	Dec. 31	3750	979	49	2138
Seal-locks	W. Ten Eyck and G. Green	414,695	Nov. 5	655	170	49	870
Seal-locks	C. J. Wands	418,596	Dec. 31	3707	968	49	2130
Seal-press	C. V. Boughton	412,456	Oct. 8	978	237	49	199
Sealing and stamping letters and other mailable mat- ter. Device for	W. Singleton	418,078	Dec. 24	2895	761	49	1859
Seam-pressing machine	C. W. Collyer	414,754	Nov. 12	877	297	49	921
Seaming machines. Attachment for tinners' double- seal	P. W. Allen	413,380	Oct. 22	2380	616	49	481
Seat:							
See Car-seat.	Key-seat.						
Car or other seat.	Table, desk, or counter seat.						
Carriage-seat.	Vehicle-seat.						
Chair-seat.	Vehicle spring-seat.						
Engineer's seat.	Water-closet seat.						
Secondary battery	H. H. Carpenter	412,727	Oct. 15	1406	367	49	320
Secondary battery	D. S. Covert and J. K. Pumpelly	416,753	Dec. 3	634	172	49	1496
Secondary battery	R. Eickemeyer	413,339	Oct. 22	2318	602	49	470
Secondary battery	T. J. Haslam, Jr.	416,605	Dec. 3	680	184	49	1504
Secondary battery	P. Kennedy and C. J. Diss	415,327	Nov. 19	1765	458	49	1094
Secondary battery	C. H. Logan	417,055	Dec. 10	1342	367	49	1644
Secondary battery	F. M. Lyte	419,639	Oct. 8	1965	330	49	355
Secondary battery	H. G. Osburn	414,428	Nov. 5	394	99	49	819
Secondary battery	C. Payen	415,531	Nov. 19	1772	461	49	1095
Secondary battery	J. K. Pumpelly	416,399	Dec. 3	630	57	49	1412
Secondary battery	W. Roberts	414,953	Nov. 12	1179	308	49	979
Secondary battery	W. F. Smith	415,981	Nov. 26	2760	728	49	1305
Secondary battery	J. W. Swan, (Release)	1,047	Dec. 17	2318	612	49	1840
Secondary battery	A. E. Woolf	418,483	Dec. 31	3521	921	49	2662
Secondary battery	J. A. Wotton and W. R. Polk, Jr.	415,600	Nov. 19	2207	575	49	1180
Sectional boiler	J. H. Ricker	417,508	Dec. 17	2029	541	49	1785
Sectional mold	F. A. Meyer	415,351	Nov. 19	1639	423	49	1069
Security bag or pouch	C. A. Preston	414,353	Nov. 5	111	36	49	769
Seed-drill	R. Gatenby, Sr.	417,555	Dec. 17	2118	564	49	1800
Seed-drill	W. Huggins	414,707	Nov. 12	816	212	49	909
Seed-drill and fertilizer-distributor	J. C. Peden	413,866	Oct. 29	3073	801	49	629
Seed linter. Cotton.	E. J. O'Brien	413,413	Oct. 22	2424	630	49	491
Seeder	E. C. Tecktonius	417,115	Dec. 10	1427	399	49	1660
Seeder and planter	J. S. Davis	413,613	Oct. 22	2712	704	49	548
Seeder and planter	N. D. Metz	417,930	Dec. 24	2671	704	49	1917
Seeding machine	W. D. Arnett	416,542	Dec. 3	585	160	49	1485
Seeding machine	W. D. Lindley	414,419	Nov. 5	365	80	49	813
Self-closing gate	W. Lebo	413,193	Oct. 22	2069	544	49	427
Self-generating burner for sad-irons.	G. Heidel	413,603	Oct. 22	2068	501	49	545
Selling device. Coin-operated	D. Olmsted	414,950	Nov. 12	1174	306	49	978
Semaphore setting apparatus. Electric.	F. Stitzel	417,525	Dec. 17	2060	549	49	1791
Semaphore setting apparatus. Electric.	F. Stitzel and C. Weisdel	417,526	Dec. 17	2064	550	49	1792
Separating-machine	N. W. Holt	417,676	Dec. 17	2282	604	49	1833
Separator:							
See Coal-separator.	Grain-separator						
Cream-separator.	Ore-separator.						
Electro-magnetic separator.	Steam-separator.						
Separator	G. A. Barnard	416,889	Dec. 10	1162	300	49	1505
Separator	B. J. Corcoran	415,993	Nov. 12	1375	359	49	1018
Separator	J. J. De Rycke	417,774	Dec. 24	2437	642	49	1872
Separator	J. M. Finch	412,179	Oct. 1	570	148	49	114
Separator and trap	J. W. Pertz	413,243	Oct. 22	2162	563	49	441
Sewer	H. Anderson	413,427	Oct. 22	2439	634	49	495
Sewer-flushing tank. Automatic	E. B. Mastick	412,965	Oct. 15	1737	454	49	332
Sewer-gas trap. Two-seal	C. H. Rhett	413,307	Oct. 22	2329	596	49	462
Sewer-trap	C. Forth	417,636	Dec. 17	2239	592	49	1823
Sewing and looping machines. Stop-motion for	W. and H. Paulmann	417,333	Dec. 17	1749	471	49	1732
Sewing-cabinet	J. A. McGlohon	411,901	Oct. 1	186	47	49	38
Sewing knit fabrics. Machine for	H. E. Harbaugh and G. W. Midgley	415,779	Nov. 26	2474	647	49	1241
Sewing-machine	R. Chandler	417,146	Dec. 10	1480	403	49	1871
Sewing-machine	D. H. Coles	416,571	Dec. 3	629	170	49	1495
Sewing-machine	Z. T. French and W. C. Meyer	412,703	Oct. 8	1359	171	49	273
Sewing-machine	T. Gaquin, Jr.	414,514	Nov. 5	510	120	49	844
Sewing-machine	C. Lewy	413,757	Oct. 29	2917	759	49	598
Sewing-machine	T. C. Robinson	416,068	Dec. 24	2675	756	49	1956
Sewing-machine	T. R. Rossiter	414,999	Nov. 12	1247	325	49	993
Sewing-machine	H. R. Tracy	413,212	Oct. 22	2119	551	49	432

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. sk	Vol.	Page.
Sewing-machine attachment for making dress-stiffening.	M. Gardner and J. Stone	413,934	Oct. 29	3182	831	49	654
Sewing-machine attachment for overcasting the edges of fabrics.	E. Bukies	413,935	Oct. 8	1193	313	49	341
Sewing-machine button-holder	J. Cook	413,164	Oct. 1	552	144	49	111
Sewing-machine. Bag.	J. L. Lowe	416,474	Dec. 3	473	129	49	1464
Sewing-machine button-hole attachment	E. Fletcher	412,061	Oct. 1	435	113	49	87
Sewing-machine cord-looping attachment	M. Gardner	413,853	Oct. 29	3051	795	49	824
Sewing-machine cordier	B. Drinkwater	416,215	Dec. 3	94	27	49	1367
Sewing-machine cording attachment	T. R. Rossiter	415,000	Nov. 12	1248	323	49	993
Sewing-machine feed mechanism.	C. H. Wilcox and J. E. A. Gibbs.	413,699	Oct. 29	4242	741	49	583
Sewing-machine feeding mechanism	T. H. Craig	416,446	Dec. 3	440	119	49	1457
Sewing-machine feeding mechanism	J. Forbes	414,303	Nov. 5	38	9	49	746
Sewing-machine for finishing button-holes	J. Reece	415,977	Nov. 26	2777	727	49	1304
Sewing-machine for making loop-stitch linings	H. H. Humphrey	411,994	Oct. 1	175	45	49	35
Sewing-machine gage. Button-hole.	A. J. Osterhout	416,182	Dec. 3	50	15	49	1379
Sewing-machine groove-cutting attachment.	A. E. Johnson	412,188	Oct. 1	391	15	49	112
Sewing-machine hemming attachment	J. C. Goodwin	415,035	Nov. 12	1300	338	49	1003
Sewing-machine hemming attachment	A. L. Mayo	414,914	Nov. 12	1123	291	49	967
Sewing-machine needle	A. O. Very	413,770	Oct. 29	2940	717	49	602
Sewing-machine needle-bar	L. W. Parkhurst	413,680	Oct. 29	2913	732	49	577
Sewing-machine needle-clamp.	L. Muther	416,409	Dec. 24	2849	750	49	1951
Sewing-machine needle-guard	S. Parker	415,302	Oct. 1	606	158	49	121
Sewing-machine plating attachment	A. Faulkner	411,917	Oct. 1	304	32	49	43
Sewing-machine plating attachment.	G. W. Weiss	417,692	Dec. 17	2106	610	49	1837
Sewing-machine presser-foot. Gage attachment for.	J. Fasser	413,043	Oct. 15	1855	486	49	375
Sewing-machine presser-foot and overlay guide.	J. F. Littlejohn	413,325	Oct. 28	2295	596	49	467
Sewing-machine ruffling attachment	E. Seitz	415,096	Oct. 15	1928	504	49	389
Sewing-machine. Shoe	Z. T. French and W. C. Meyer	412,704	Oct. 8	1364	355	49	274
Sewing-machine shuttle	W. A. Polmateer	415,057	Dec. 24	2461	752	49	1853
Sewing-machine shuttle-actuating mechanism	J. T. Jones	413,111	Oct. 15	1870	502	49	393
Sewing-machine shuttle cop-holder	A. H. Panghoner	412,377	Oct. 8	875	328	49	112
Sewing-machine shuttles. Cop-holder for	C. E. Wilkinson	414,354	Nov. 5	356	64	49	790
Sewing-machine. Sole	E. P. Richardson	415,064	Nov. 12	1337	349	49	1010
Sewing-machine stand	C. A. Dearborn	413,610	Oct. 29	2768	330	49	569
Sewing-machine. Straw-braid.	C. H. Wilcox and G. H. Noble	413,218	Oct. 1	623	165	49	127
Sewing-machine take-up	J. E. A. Gibbs	415,914	Nov. 26	2594	659	49	1251
Sewing-machine tension apparatus	J. E. A. Gibbs	413,657	Oct. 29	2774	727	49	570
Sewing-machine tension device.	G. R. Pearce	416,233	Dec. 3	117	33	49	1291
Sewing-machine tension mechanism.	A. Seward	415,951	Nov. 26	2745	717	49	1298
Sewing-machine tucking attachment	G. W. Greene	413,660	Oct. 29	2779	722	49	571
Sewing-machine tucking-guide	H. Freedman	414,149	Oct. 29	3507	911	49	722
Sewing-machine. Wax-thread	A. A. Cumming and E. J. Peirce, Jr	417,002	Dec. 10	1348	342	49	1026
Sewing-machines. Cast-off for wax thread.	J. H. Jacobs	416,841	Dec. 10	1032	277	49	1580
Sewing-machines. Counter-holder for shoe.	J. Barrett	413,706	Oct. 29	2652	744	49	575
Sewing-machines. Feed mechanism for button-hole.	R. Spahn	413,875	Oct. 29	3093	806	49	632
Sewing-machines. Spring-motor for.	D. M. Pfautz	417,081	Dec. 10	1375	376	49	1651
Sewing on buttons. Machine for	E. H. A. Habbert and W. E. Beckmann	418,124	Dec. 24	2976	779	49	1974
Sewing. Preparing bed-quilts for	W. H. Palmer, Jr	413,811	Oct. 29	3996	780	49	612
Shade-holder. Candle	E. W. Rice, Jr	416,745	Dec. 10	887	329	49	1533
Shade holder. Roller	E. Beach	412,301	Oct. 8	759	197	49	155
Shade-roller. Spring.	S. Hartshorn	417,783	Dec. 24	3454	646	49	1875
Shades. Machine for hemming and sewing fringe to.	J. N. Wiggin	416,882	Dec. 10	1092	294	49	1593
Shades to rollers. Machine for securing window.	J. N. Wiggin	416,881	Dec. 10	1091	295	49	1592
Shaft attachment. Carriage	C. C. Graham	413,051	Oct. 15	1967	497	49	377
Shaft coupling or clutch	L. Racine	415,633	Nov. 19	2329	597	49	1196
Shaft. Flexible	G. Sibley	416,437	Dec. 3	409	110	49	1451
Shaft-hanger	E. J. Pennington	417,881	Dec. 24	3594	683	49	1961
Shaft-hanger	F. W. Ulrich	416,197	Dec. 3	69	30	49	1369
Shaft-hanger. Adjustable	C. M. Brandt	414,489	Nov. 5	474	120	49	836
Shaft holder. Vehicle	P. J. Harrah	412,086	Oct. 1	443	115	49	89
Shaft lubricator and cooler	Y. W. Blanchard	413,925	Oct. 29	3165	827	49	650
Shaft-support	C. Bishop and O. D. Miller	414,185	Nov. 5	11	49	49	741
Shaft-support	D. McVaw	411,828	Oct. 1	79	22	49	19
Shaft-support	J. V. Noot and G. W. Ryder	414,435	Nov. 5	390	98	49	818
Shaft. Vehicle	F. O. Wyer	415,163	Nov. 15	1319	391	49	1038
Shaft. Vehicle	M. Cassidy	416,159	Dec. 3	69	30	49	1370
Shaft. Vehicle	D. M. and T. H. Parry	415,732	Nov. 26	2412	630	49	1329
Shafts for road-carts	N. W. Parker and F. Wilcox	413,304	Oct. 29	2266	589	49	461
Shafts. Machine for bending vehicle.	T. E. Montague	415,919	Nov. 26	2680	702	49	1253
Shafts. Vehicle	J. W. Hewitt	413,229	Oct. 29	2146	528	49	437
Shaking screen	F. Prinz	418,588	Dec. 31	3692	964	49	2136
Shaping-machine table.	T. M. Bear and J. Paxman	415,015	Nov. 12	1271	332	49	997
Shaving-case. Travelers	R. M. Weeks	414,465	Nov. 5	438	111	49	1329
Shawl-strap	H. W. Reynolds	412,293	Oct. 8	749	196	49	154
Sheaf-carrier	W. W. Burson	412,237	Oct. 8	667	176	49	139
Sheaf-carrier	A. Jewell	414,909	Nov. 12	1115	289	49	906
Sheaf-carrier	M. Kane	415,785	Nov. 26	2458	649	49	1243

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Sheaf-carrier	H. E. Pridmore	418,322	Dec. 31	3123	219	49	2912
Shearing-machine	G. Richardson	415,125	Nov. 12	1430	220	49	1028
Shears:					271		
See Beveling-shears.					373		
Metal-cutting shears.							
Shears	W. A. Kelsey	413,521	Oct. 22	2777	668	49	521
Shears and conveyor. Combined	H. S. Smith and C. Pettigrew	416,961	Dec. 10	1195	326	49	1614
Sheathing and lath. Combined	T. Mason	413,259	Oct. 22	2162	569	49	445
Sheave	H. P. Terry	415,987	Nov. 26	2789	730	49	1307
Sheep-shearing machine	R. Monday	415,365	Nov. 19	1822	474	49	1103
Sheet-delivering apparatus	F. J. Seder	412,003	Oct. 1	322	84	49	66
Sheet-metal articles. Forming	A. W. Paul	413,374	Oct. 22	2373	614	49	480
Sheet-metal articles. Making	A. W. Paul	413,372	Oct. 22	2371	614	49	479
Sheet-metal-lending machine	A. V. H. Loop	413,451	Oct. 22	2473	642	49	501
Sheet-metal can	A. H. Young and R. Belden	416,536	Dec. 3	576	156	49	1454
Sheet metal. Drawing	A. W. Paul	412,373	Oct. 22	2272	614	49	479
Sheet-metal folder	M. E. Hastings	412,254	Oct. 8	690	182	49	143
Sheet-metal handle	H. W. Avery	413,640	Oct. 29	2755	715	49	567
Sheet metal. Manufacturing	J. R. Jackson	412,498	Oct. 31	3537	876	49	2036
Sheet metal. Manufacturing	J. R. Jackson	418,371	Dec. 31	3359	876	49	2058
Sheet-metal rod, &c	F. Miller	413,953	Oct. 29	3209	838	49	959
Sheet-metal vessel	J. Stern	415,864	Nov. 26	2784	729	49	1306
Shell-bracket	S. Jewell	416,461	Dec. 3	3486	915	49	807
Shell	S. H. Emmons	414,389	Nov. 5	366	78	49	600
Shell	J. J. Moore	412,856	Oct. 15	1586	413	49	322
Shell for ordnance	S. H. Emmons	415,707	Nov. 26	2376	620	49	1231
Shell, &c. Manufacturing articles from	G. T. Lincoln	412,498	Oct. 31	3537	876	49	183
Shell. Movable needle	F. P. Langfit	415,719	Nov. 26	2391	624	49	1235
Shells. Implement for loading and reloading	C. C. Clifford	413,435	Oct. 22	2449	636	49	496
Sheller:							
See Corn-sheller.							
Shield	B. B. Buck	418,395	Dec. 31	3395	886	49	9066
Shingle-machine	F. J. Drake	415,098	Nov. 12	1350	361	49	1020
Shingle or roofing plate. Metal.	W. M. Norcross	416,851	Dec. 10	1042	280	49	1582
Shingle-packing machine	W. J. Perkins	414,963	Nov. 19	1216	326	49	990
Shingle-sawing machine	J. A. Mumford	411,825	Oct. 1	73	30	49	17
Shingle-sawing machines. Anti-friction way for	C. M. Frank	415,322	Nov. 19	1761	457	49	1093
Shingle-sawing machines. Spalt-dropping mechanism for	F. Chailoner	415,857	Nov. 26	2387	676	49	1202
Ship's rigging	G. D. Coleman	414,631	Nov. 5	692	180	49	877
Shirt	F. Batter	418,639	Dec. 31	3769	984	49	2141
Shirt	G. D. Eighmie	414,197	Nov. 5	32	7	49	744
Shirt	G. D. Eighmie	412,908	Nov. 5	32	7	49	144
Shirt	G. D. Eighmie	415,905	Nov. 26	2657	697	49	1375
Shirt	G. D. Eighmie	415,906	Nov. 26	2658	697	49	1379
Shirt, &c.	A. E. Lehman	412,764	Oct. 15	1459	381	49	299
Shirt and vest. Combined	C. Wagner	413,967	Oct. 29	3239	851	49	669
Shirt-sleeve	G. D. Eighmie	414,199	Nov. 5	33	7	49	745
Shirts. Making open-front-bosom	R. Cluett	415,447	Nov. 19	1948	506	49	1128
Shoe	A. Chapman	417,542	Dec. 17	2102	559	49	1797
Shoe	C. Wurtel	417,460	Dec. 17	1942	518	49	1768
Shoe. Base-ball	W. Croner	412,472	Oct. 8	1010	263	49	206
Shoe-beading machine	L. K. Strang	416,306	Dec. 3	234	60	49	1415
Shoe-burnishing tool	W. Lawes	417,672	Dec. 24	2581	640	49	1699
Shoe-holding device	W. W. Yattal	417,454	Dec. 17	1934	516	49	1767
Shoe-hook	W. H. Smith	413,098	Oct. 15	1933	265	49	390
Shoe-lacing hook	W. H. Smith	413,099	Oct. 15	1934	265	49	390
Shoe-nail	H. A. Sanford	412,981	Oct. 15	1755	459	49	355
Shoe-shanks. Machine for making	G. B. Lamb	417,925	Dec. 24	2656	701	49	1914
Shoe-sole fastening	F. C. H. Fickert	415,771	Nov. 26	2469	645	49	1340
Shoe. Spring	J. B. Walker	413,693	Oct. 29	2635	739	49	581
Shoe-stretcher	A. W. Cash	416,775	Dec. 10	927	251	49	1560
Shoe. Turned	S. S. Titcomb	415,077	Nov. 12	1336	354	49	1014
Shoe-upper	J. B. Carrick	412,673	Oct. 15	1603	418	49	326
Shoe-cure	I. H. Willis	412,617	Oct. 15	1594	399	49	312
Shovel:							
See Snow-shovel.							
Shovel or scoop	R. T. Pottetone	413,362	Oct. 22	3188	570	49	446
Shovel or spade	C. W. Wright	412,353	Oct. 8	1112	291	49	127
Show-case	D. I. Keller	416,923	Dec. 10	1148	314	49	1604
Show-case	W. C. Rood	413,544	Oct. 8	1112	291	49	227
Show-case	E. A. Shipman	413,872	Oct. 29	3069	805	49	631
Show-case. Dust-proof	E. Phillips	415,056	Dec. 12	1350	369	49	435
Show-windows. Device for supporting articles in	J. P. Kerr and W. M. Hodge	415,912	Nov. 26	2607	690	49	1261
Shutter-fastener	G. Bessel and O. T. Maier	415,437	Nov. 19	1928	502	49	1125
Shutter-fastener	J. L. Cherot	416,992	Dec. 10	1230	337	49	1622
Shutter-fastener	F. Meaker	417,064	Dec. 10	1253	371	49	1646
Shutter-worker	G. Andreen	413,219	Oct. 22	2331	554	49	435
Shuttle-planer	J. M. Newton	412,930	Oct. 15	1692	441	49	342
Sickle-bars. Implement for holding	J. C. Gentry	415,712	Nov. 26	2395	632	49	1222
Sickle-grinder	H. Thibault	416,518	Dec. 3	550	149	49	1479
Sieve and scales. Combined flour	A. T. Evans	413,223	Oct. 29	3012	764	49	616
Sieve for flour and similar substances	M. Lary	416,228	Dec. 3	110	31	49	1390
Sifter. Ash	J. Dillon	415,622	Nov. 19	2348	587	49	1128
Sifter. Ash	J. Hanley	413,936	Oct. 29	3185	831	49	655
Sifter. Ash	J. Karyl	413,937	Oct. 29	3186	832	49	656
Sifter. Ash	G. Palmatier	415,354	Nov. 19	2137	555	49	1167

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Debt	Vol.	Page.
Sifter. Ash.	S. Sudlow	417,889	Dec. 34	3606	686	49	1904
Sifter. Flour.	G. H. Païne	413,303	Oct. 32	2265	369	49	461
Sight-feed lubricator	G. M. Marchant	413,759	Oct. 30	2920	780	49	500
Sign	P. Knorrp	416,925	Oct. 10	1151	614	49	1605
Sign	F. Mitchell	412,972	Oct. 15	1745	456	49	353
Sign. Movable	J. P. Rolly	416,075	Nov. 36	3999	764	49	1335
Signal.	E. K. Kelly	412,394	Oct. 8	899	234	49	189
See Car signal.	Railway-station signal.						
Electric signal.	Railway time-signal.						
Fire-signal.	Railway train-signal.						
Railway-signal.	Train-signal.						
Railway semaphore-signal.							
Signal apparatus	J. T. Hambay	412,178	Oct. 1	577	150 151 171	49	116
Signal apparatus. Electrical	G. W. M. Konz	416,572	Dec. 3	631	172	49	1495
Signal-rods. Anti-friction guide for	J. T. Hambay	416,783	Dec. 10	944	254	49	1563
Signal system. Electric police.	C. E. Scribner	415,574	Nov. 19	2171	567	49	1174
Signalling apparatus. Circuit-closer for	G. D. Burton	412,460	Oct. 8	983	356	49	360
Signalling apparatus. Electric	W. E. Dutton	413,436	Oct. 10	2457	467	49	1001
Signalling apparatus. Train	S. T. Dutton	416,777	Dec. 10	931	332	49	1361
Signalling purposes. Booth for	T. P. Gaynor	411,805	Oct. 1	11	12, 13	49	11
Silos. Apparatus for drawing off grain from	F. Henderson	413,720	Nov. 19	2668	749	49	588
Singletree	F. Heyberger	415,322	Nov. 19	2668	631	49	1606
Sink	S. A. Marker	412,195	Oct. 1	598	155	49	130
Sink-back	J. G. Morrison	417,266	Dec. 17	1654	448	49	1714
Sink-brick, made of cement	J. Moore	413,861	Oct. 29	3666	799	49	627
Sink-trap	J. W. A. Sutton	417,441	Nov. 19	2668	311	49	1733
Siphon-head	E. Kadavyani	417,536	Dec. 17	1752	473	49	1729
Siphon. Stop	A. S. Filwood	416,217	Dec. 3	96	28	49	1387
Siphonic and compressed-air system for conveying liquids	J. K. Leedy	413,194	Oct. 22	2090	344	49	427
Siphonic dispenser for vitriol, &c	H. C. Kruse	412,191	Oct. 1	594	154	49	119
Size for yarns and fabrics. Compound for addition to.	T. W. Wattles	414,351	Nov. 5	251		49	729
Skate	T. H. McQuown	414,915	Nov. 12	1134	292	49	968
Skate	W. F. Patterson	414,089	Oct. 29	3414	867	49	702
Skins. Manufacturing hooded	W. F. Patterson	412,411	Oct. 8	920	241	49	136
Skins. Securing plugs in tubular	W. F. Patterson and J. J. Isherwood	412,410	Oct. 8	919	240	49	136
Skirt-elevator. Dress	G. W. Way	416,022	Nov. 26	2844	744	49	1318
Skirt-protecting garment	K. E. Wood	415,426	Oct. 22	2438	633	49	1603
Skirt-supporter	L. M. Mahlat	416,477	Dec. 3	475	130	49	1396
Skylight	G. Bickelhaupt	416,251	Dec. 3	139	39	49	436
Skylight	F. S. Copley	416,445	Dec. 3	438	119	49	1457
Skylight	J. T. Pennycook	417,304	Dec. 17	1751	672	49	1733
Skylight	J. B. Wels and E. Berndt.	412,313	Oct. 8	776	202	49	150
Skylight ventilating cash-bar	J. M. Cornell	418,109	Dec. 31	3056	801	49	1998
Slabs. Glazing-bar for	T. W. Howell	412,750	Oct. 15	1434	374	49	726
Slat-lock and head-stay	B. F. Everett	414,492	Nov. 5	450	169	49	280
Slate-cleaner and eraser	H. Rothermal	416,807	Dec. 10	976	283	49	1579
Slate-dressing machine	F. K. Marks	413,348	Oct. 32	2335	605	49	473
Slate-framing. Pencil-holder for	J. O. Hébert	416,728	Dec. 10	865	223	49	1448
Slate. School	S. Marks	415,900	Nov. 19	2668	157	49	180
Slate. School	J. S. Moyer	412,328	Oct. 22	2324	284	49	1361
Sled	R. B. Amee	412,062	Oct. 1	410	105	49	82
Sled	J. I. Hancock	413,054	Oct. 15	1870	488	49	378
Sled	J. I. Hancock	416,072	Dec. 4	2668	758	49	1368
Sled	J. D. Thomas	414,459	Nov. 5	430	169	49	287
Sled. Bob	F. Chapin and W. J. Edwards	418,164	Dec. 31	3045	799	49	1996
Sleigh. Bob	W. G. Powell	416,643	Dec. 3	739	201	49	1517
Sleigh. Bob	W. G. Powell	416,643	Dec. 3	739	201	49	1517
Sleigh-gear	W. G. Powell	416,643	Dec. 3	739	201	49	1517
Sleigh-runner for vehicles	J. B. Floyd	417,817	Dec. 24	2504	660	49	1884
Sliding-hill and toboggan to be used therewith	J. B. Floyd	417,817	Dec. 24	2504	660	49	1884
Slicing or rolling gate	J. M. Vanover	412,684	Oct. 8	1334	347	49	369
Slime settler or separator	J. H. Baker	417,961	Dec. 3	654	169	49	289
Slip-joint for sheet-metal cornices, pipes, &c	J. Smith	415,224	Nov. 19	1601	413	49	1002
Slotting-machine	H. L. Binns and A. J. Frith	411,884	Oct. 1	158	41	49	33
Smelting from ore	N. A. Pratt	413,552	Oct. 22	2612	677	49	527
Smelting ores. Apparatus for	N. A. Pratt	413,551	Oct. 22	2610	676	49	527
Smoke-consumer	E. Danford and C. E. A. Sagle	417,411	Dec. 17	1873	502	49	1754
Smoke-consumer	E. Danford and C. E. A. Sagle	417,412	Dec. 17	1874	502	49	1755
Smoke-consumer	E. Danford and C. E. A. Sagle	417,169	Dec. 10	1501	409	49	1675
Smoke-consuming furnace	D. Clegg	416,671	Dec. 3	782	214	49	1300
Smoke-consuming furnace	O. H. B. Eysner	416,671	Dec. 3	782	214	49	1301
Smoke-consuming furnace	W. Perry	412,659	Oct. 8	1296	339	49	361
Smoke-consuming furnace	E. Danford	412,607	Oct. 8	1297	340	49	362
Smoke-consuming furnace	F. E. Jones	417,961	Dec. 3	654	169	49	289
Smoke-preventer	R. A. Breul	414,611	Oct. 29	3306	861	49	679
Snap-hook	R. A. Dennis	413,125	Oct. 15	1994	530	49	402
Snap-hook	M. D. Baker	415,630	Nov. 12	1288	336	49	1001
Snap-hook	C. Fauchereau	413,246	Oct. 8	879	219	49	1300
Snap-hook	O. Fleischhauer	416,453	Dec. 3	447	122	49	1459
Snap-hook	T. T. Morrow	412,112	Oct. 1	471	123	49	95
Snap-hook	H. S. Suller	418,246	Dec. 31	3168	829	49	2020
Snap-hook	P. A. Waldron	413,345	Nov. 19	2668	273	49	1178
Snow from railway-tracks. Apparatus for cleaning	P. Graeb	413,496	Oct. 8	1053	273	49	212
Snow-plow	E. J. Godard	415,103	Nov. 12	1390	363	49	1023
Snow-plow. Rotary	E. J. Godard	415,104	Nov. 12	1391	364	49	1024
Snow-plow. Rotary	E. P. Caldwell	413,423	Oct. 22	2445	635	49	499

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	De't.	Vol.	Page.
Snow-scraper	E. Gates	414,110	Oct. 29	3447	896	49	709
Snow-scraper	O. S. Wheeler	418,387	Dec. 31	3294	861	49	836
Snow-shovel	G. V. H. Whitbeck	416,387	Dec. 3	355	94	49	1459
Soap and brush holder	W. P. Stott	416,967	Dec. 10	1290	329	49	1616
Soap-stamping machine	J. B. Lawton	418,467	Dec. 31	3498	915	49	2087
Soap-lyes. Apparatus for treating	A. Domeier and O. C. Hagemann	413,617	Oct. 22	2716	705	49	549
Soap-lyes. Apparatus for treating	A. Domeier and O. C. Hagemann	413,618	Oct. 22	2717	705	49	549
Soap-lyes. Purifying salt recovered from spent	A. Domeier and O. C. Hagemann	413,616	Oct. 22	2715	705	49	549
Soap-lyes. Recovering glycerine from spent	A. Domeier and O. C. Hagemann	413,619	Oct. 22	2718	705	49	550
Soap. Making	A. L. Crane	413,035	Oct. 15	1644	429	49	373
Soda. Apparatus for recovering	E. N. Atwood	418,384	Dec. 31	3189	835	49	2025
Soda. Apparatus for recovering	F. A. Clouman	418,373	Dec. 31	3201	838	49	2027
Soda. Recovering	E. N. Atwood	418,385	Dec. 31	3190	835	49	2025
Soda. Recovering	F. A. Clouman	418,374	Dec. 31	3202	838	49	2028
Soda. Recovering	T. L. Witting	414,372	Nov. 5	136	32	49	764
Soda-water, &c. Dispensing apparatus for	A. D. Puffer	418,223	Dec. 31	3125	820	49	2012
Soda-water-draft apparatus	A. D. Puffer	418,223	Dec. 31	3125	820	49	2012
Soda-water fountain	A. D. Puffer	418,223	Dec. 31	3125	820	49	2012
Solder from tinned iron. Separating	W. F. Harris	416,408	Dec. 3	364	91	49	1456
Solder-melting furnace	E. Hawes	413,393	Oct. 29	3192	838	49	636
Soldering apparatus for can-soldering machines	E. E. Angell	412,553	Oct. 8	1173	308	49	238
Soldering apparatus. Tinner's	L. R. Blackmore	414,370	Nov. 5	379	71	49	734
Soldering block. Can-	C. H. Ayres	417,390	Dec. 17	135	492	49	1747
Soldering-iron heater	G. B. Snow	417,107	Dec. 10	1415	396	49	1658
Soldering machine. Can-	E. E. Angell	412,582	Oct. 8	1170	307	49	237
Soldering machine. Can-	E. E. Angell	416,538	Dec. 3	378	157	49	1484
Soldering machine. Can-	W. D. Brooks	418,495	Dec. 31	3544	927	49	2097
Soldering machine. Can-	W. H. Gilbert	417,720	Dec. 24	2252	629	49	1856
Soldering machine. Can-	S. J. Seneca	414,728	Nov. 12	843	218	49	913
Soldering machines. Operating mechanism for can-	E. E. Angell	416,539	Dec. 3	381	159	49	1485
Soldering-machines. Wiper for	W. J. Phelps and J. B. McNabb	417,662	Dec. 17	2294	607	49	1835
Soldering-salt	A. E. Benson	417,339	Dec. 17	1716	400	49	1736
Soldering the ends of cans. Apparatus for	T. Davidson	418,005	Dec. 31	324	971	49	2122
Sole	J. N. Moulton	416,118	Nov. 26	3015	755	49	1351
Sole laying and pressing machine	J. A. Horton	416,630	Dec. 3	701	190	49	1510
Sound-trans. alter	R. Blake	412,934	Oct. 8	669	173	49	137
Sower. Seed	C. W. Sorensen	416,127	Nov. 26	3034	759	49	1334
Spacing-instrument	O. H. Woodworth	416,205	Dec. 3	81	23	49	1384
Spark-conductor	K. H. Carpenter	415,831	Nov. 26	3251	666	49	1255
Speaking-tubes. Sound-receiver for	H. E. Walsh	415,805	Dec. 31	3705	706	49	1289
Spectacle-frame	H. E. Kirstein	412,395	Oct. 29	329	825	49	1835
Spectacles	J. McPhail	416,485	Dec. 3	494	134	49	1469
Spectacles	P. Peck	417,069	Dec. 10	1374	376	49	1651
Spectacles	T. Smith	411,971	Oct. 1	379	72	49	56
Speculum-irrigator	E. H. Woolsey	415,459	Oct. 22	2966	647	49	505
Speed. Change of	C. E. Patrie	414,384	Nov. 5	813	54	49	761
Speed-gage	O. Braun	416,806	Dec. 10	1110	303	49	1296
Speed-governor. Traveler-cleaner	M. H. Colton	417,770	Dec. 24	2433	641	49	1871
Speed-indicator	C. H. Wilmarth	418,008	Dec. 31	3782	773	49	2125
Speed-indicator	L. B. Holmes	418,411	Dec. 31	3416	893	49	2071
Speed-regulator	C. S. Tainter	416,969	Dec. 10	1209	329	49	1616
Speeds. Device for transmitting different	S. Elliott	418,261	Dec. 31	3214	840	49	2029
Spherical bodies. Machine for turning, grinding, and polishing	R. Conrader	418,350	Dec. 31	3331	870	49	2053
Spike	L. A. Bower	418,531	Oct. 15	1544	404	49	316
Spike	W. Taylor	411,341	Oct. 1	104	27	49	53
Spike-extractor	F. P. West	416,529	Dec. 3	565	154	49	1472
Spike-machine	J. W. Bowman	415,494	Nov. 19	3035	529	49	1146
Spike-pointing machine	W. Goldie	413,341	Oct. 22	2325	603	49	471
Spike. Pointing	W. Goldie	413,342	Oct. 22	2327	603	49	471
Spindle and bearing therefor	J. W. Wattles	415,336	Nov. 19	1778	462	49	1266
Spindle-wharve	J. Shaw	412,004	Oct. 1	324	85	49	66
Spinning and twisting machine	L. Dimock	416,326	Dec. 3	260	68	49	1421
Spinning-frame kink-arrester	C. D. Wilmarth	413,746	Oct. 29	2994	741	49	1373
Spinning frame. Ring	A. J. Nichols	415,419	Nov. 19	1994	495	49	1120
Spinning-frame-spindle support	G. E. Taft and H. F. Woodmaney	412,996	Oct. 15	1753	466	49	380
Spinning-frame traveler-cleaner	W. E. Sharples	414,259	Nov. 5	139	28	49	761
Spinning frames. Traveler-clearer for ring	W. E. Sharples	418,475	Dec. 31	3310	863	49	2090
Spinning frames. Traveler-clearer for ring	A. F. Whitin	412,575	Oct. 8	1157	303	49	235
Spinning frames. Traveler-clearer for ring	A. F. Whitin	412,576	Oct. 8	1158	304	49	235
Spinning-machine lever-screw	W. Murray	418,564	Dec. 31	3665	963	49	2125
Spinning-machine spindle-driving device	G. Mitchell and T. Hargreaves	416,177	Dec. 3	44	14	49	153
Spinning-machine spindle-driving device	J. E. Tynan	415,297	Nov. 26	2546	665	49	1254
Spinning-machine spindle-driving device	T. Vanderweel	411,842	Oct. 1	105	28	49	23
Spinning-machine spindles. Bobbin-holder for	H. Mawson	411,936	Oct. 1	21	56	49	45
Spinning-machine top roll	W. T. Kellogg	414,294	Nov. 5	747	148	49	322
Spinning-machines. Traveler-clearer for	A. F. Whitin	412,574	Oct. 8	1156	303	49	235
Spinning machinery. Spindle-support for	S. Bates, E. F. Shaw, and G. M. von Cullen	416,287	Dec. 3	202	53	49	1408
Spinning-mule	J. L. Brook	414,012	Oct. 29	3307	802	49	680
Spinning-mule	T. H. Conley and J. Andrews	415,095	Nov. 12	1322	335	49	1000
Spinning-spindle and support therefor	J. E. Tynan	411,878	Oct. 1	147	38	49	31
Spinning-spindle support	J. M. Hetherington	414,336	Nov. 5	544	140	49	849
Spinning-spindle support	H. Burlingame	412,169	Oct. 24	347	557	49	1892
Spinning-spindle support	W. F. Draper	412,170	Oct. 1	568	148	49	114
Spinning-spindle support	W. F. Draper	412,171	Oct. 1	569	148	49	114

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly Volume.		Official Gazette.	
				Spec.	Dr't	Vol.	Page.
Spinning-spindle support	B. N. Goodale	414,042	Oct. 29	3347	872	49	688
Spinning-spindle support	B. N. Goodale	416,333	Dec. 31	33093	863	49	2047
Spinning-spindle support	J. H. Logan	412,031	Oct. 1	307	94	49	964
Spinning-spindle whiff	J. Birkenhead	413,435	Oct. 22	2922	653	49	511
Spinning-spindles. Spindle-support for	S. Bates	416,286	Dec. 3	900	53	49	1407
Spinning-spindles, &c. Support for	R. White	416,530	Dec. 3	566	154	49	1492
Spirometer	S. W. Paine	413,445	Oct. 29	3071	800	49	628
Spirometer. Coin-controlled	F. E. Robinson	416,859	Dec. 10	1054	284	49	1385
Spirometer. Coin-released	J. Parker	414,323	Nov. 5	211	53	49	781
Spittoon	G. D. Swartwout	415,256	Nov. 19	1645	425	49	1070
Split-trimming machine	A. E. Tenney	417,604	Dec. 17	2121	560	49	1813
Spoke-drawer	J. M. Germann	414,902	Nov. 12	1105	285	49	944
Spoke-socket	J. R. McAllister	417,741	Dec. 24	2385	628	49	1261
Spoke-socket	J. H. Stich	417,598	Dec. 17	2176	578	49	1813
Spoke-shave	I. Camber	417,144	Dec. 10	1477	401	49	1670
Sponge and pencil holder. Combined	H. B. Wood	418,280	Dec. 31	3122	818	49	2011
Sponge-cup	H. Crogon	412,694	Oct. 8	1309	318	49	244
Spool and work holder. Combined	A. W. Mitchell	416,176	Dec. 3	43	13	49	1377
Spool-holder	S. A. Cooney	417,151	Dec. 10	1489	405	49	1672
Spool-holder	C. W. Wood	413,994	Oct. 29	3276	854	49	671
Spools. Head for jack-	F. Latnlp	413,192	Oct. 32	3087	543	49	426
Speeding attachment	C. Pettit	414,574	Nov. 5	602	155	49	859
Spooling-machines. Traverse-motion for	S. M. Hamblin and W. H. Goldsmith	417,224	Dec. 24	2315	602	49	1887
Spout for bottles, tumblers, &c. Adjustable	W. Vom Hofe	417,958	Dec. 24	2715	714 715	49	1924
Spring:							
Door-spring.	Torsion-spring.						
Double-tree-spring.	Vehicle-spring.						
Dress-spring.	Watch-case spring.						
Spring-forming machine	E. D. Olin	417,272	Dec. 17	1664	451	49	1716
Spring-hanging device	J. Weeks	414,097	Oct. 29	3428	891	49	705
Spring-motor	C. W. Carpenter	418,163	Dec. 31	3044	799	49	1996
Spring-motor	J. T. Miller	413,954	Oct. 29	3210	838	49	659
Spring-motor	H. Westphal	413,556	Oct. 22	2347	608	49	474
Springs. Machine for making spiral wire	E. Petersen	416,642	Dec. 3	737	200	49	1516
Sprinkler:							
See Automatic sprinkler. Street water-sprinkler.							
Clothes-sprinkler. Water-sprinkler.							
Lawn-sprinkler.							
Sprinkler	W. A. Denison	414,502	Nov. 5	491	135	49	840
Sprinkler	T. M. Murphy	418,048	Dec. 2	2846	751	49	1830
Sprinkler	F. Splittsofer	414,732	Nov. 12	848	220	49	914
Sprinkling-machine. Agricultural	G. F. Strawson	415,587	Nov. 19	2191	571	49	1178
Square. Try-	D. H. Isenlinger	413,946	Oct. 29	3201	806	49	658
Stair-cases. Construction of	L. Wagner	415,078	Nov. 12	1357	354	49	1014
Stair-rod securer	G. C. White	417,539	Dec. 17	2082	552	49	1793
Stairway	P. Rieseck. (Reissue)	11,093	Oct. 1	642	167	49	128
Stairway	P. Rieseck	412,598	Oct. 15	1645	429	49	333
Stalk-cutter and rake. Combined	T. McAdon	418,050	Dec. 24	2521	751	49	1931
Stamp. Atmospheric	C. H. Krause	414,910	Nov. 12	1117	289	49	906
Stamp-hattery	M. P. Boss	416,893	Dec. 10	1107	301	49	1596
Stamp-canceller, dater, and numerical register. Combined letter.	H. C. Crane	413,847	Oct. 29	3042	793	49	622
Stamp-cancelling and postmarking machine	W. Groth	416,674	Dec. 3	786	215	49	1295
Stamp-counting device	W. A. Crockett and J. N. Hatcher	414,142	Oct. 29	3493	907	49	719
Stamp. Hand.	E. D. Chamberlain	413,927	Oct. 15	1853	479	49	371
Stamp. Hand.	G. D. Pringle	417,278	Dec. 17	1674	453	49	1715
Stamp. Ore	G. E. Smith and C. H. Wilkie	417,965	Dec. 24	2726	717	49	1826
Stamp-register	E. R. Henthorn	413,855	Oct. 29	3057	796	49	625
Stamp. Time	E. H. Rogers, Jr.	412,900	Oct. 15	1647	430	49	334
Stamp. Time	E. H. Rogers, Jr.	413,328	Oct. 22	2298	597	49	467
Stamp. Time	C. H. Shaw	412,909	Oct. 15	1650	598	49	334
Stamping or dating machine	E. F. and G. W. Spivey	413,658	Oct. 29	2928	737	49	380
Stamping. Pounce for French	C. H. Simms	412,549	Oct. 8	1117	292	49	227
Stamping-press. Steam	H. W. Dopp	414,687	Nov. 12	796	204	49	903
Stanchion	H. C. Miner	417,265	Oct. 17	1652	448	49	1714
Stanchion. Portable	J. T. Morris and B. S. Cool	413,080	Oct. 15	1963	497	49	385
Stand:							
See Bee-hive stand.	Music-stand.						
Cabinet-stand.	Wash-stand.						
Flower-stand.							
Stand	L. Wojtkow	416,283	Dec. 3	196	52	49	1406
Staple-making machine	E. H. Taylor	418,145	Dec. 24	3010	789	49	1979
Station-indicator	M. Anthony	418,346	Dec. 31	3322	867	49	2051
Station-indicator	J. F. O'Brien	413,958	Oct. 29	2216	839	49	661
Station-indicator	W. T. Snedden	416,304	Dec. 3	228	59, 60	49	1414
Station-indicator	N. N. Winn	417,895	Dec. 24	2617	690	49	1906
Station-indicator operating mechanism	W. T. Snedden	416,303	Dec. 3	225	59	49	1413
Station-indicator operating mechanism	W. T. Snedden	416,305	Dec. 3	221	60	49	1414
Stave-former	T. J. Sullivan	417,603	Dec. 17	2180	579	49	1813
Stave-jointing machine	E. and B. Holmes	415,461	Nov. 19	1974	513	49	1134
Stave-making machine	J. Pleukharp	415,558	Nov. 19	2142	359	49	1189
Steam-boiler	J. Burnhart	412,718	Oct. 15	1394	365	49	269
Steam-boiler	V. W. Blanchard	413,966	Oct. 29	3137	819	49	648
Steam-boiler	V. W. Blanchard	413,924	Oct. 29	3164	827	49	650

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & G.	Vol.	Page.
Steam-holler	N. S. and E. R. Bowdish	416,558	Dec. 3	607	165	49	1491
Steam-holler	H. A. R. Dietrich	412,950	Oct. 15	1717	449	49	347
Steam-holler	E. Gillet	414,207	Nov. 5	49	11	49	747
Steam-holler	C. Gortou	415,002	Oct. 29	97	731	49	571
Steam-holler	J. M. Lachlan	414,911	Nov. 12	1119	290	49	967
Steam-holler	J. P. Simmons	415,302	Nov. 19	1724	449	49	1055
Steam-holler	J. P. Simmons	415,303	Nov. 19	1725	449	49	1056
Steam-holler	J. Wilson	417,303	Dec. 17	1709	460	49	1725
Steam-holler. Sectional	N. W. Pratt	415,976	Nov. 26	2774	726	49	1304
Steam-holler. Sectional	A. Worthington	412,820	Oct. 15	1529	400	49	313
Steam-brake	T. W. Prosser	415,631	Oct. 22	2735	709	49	553
Steam-controlling device	R. Smith	412,604	Oct. 15	1509	393	49	308
Steam-coupling	C. A. Hammond and R. D. Sutherland	412,609	Oct. 8	1317	330	49	245
Steam-drum	V. W. Blanchard	413,918	Oct. 29	3156	894	49	648
Steam-engine	M. P. Anderson	417,379	Dec. 17	1833	492	49	1747
Steam-engine	S. L. Bates	418,548	Dec. 31	3629	948	49	2115
Steam-engine	E. M. Birdall	415,438	Nov. 19	1929	502	49	1125
Steam-engine	V. W. Blanchard	413,907	Oct. 29	3138	819	49	643
Steam-engine	D. Burns	416,823	Dec. 10	997	270	49	1574
Steam-engine	J. T. Case	412,465	Oct. 8	990	259	49	201
Steam-engine	J. Cheek	416,900	Dec. 10	1115	304	49	1509
Steam-engine	W. E. Clarke	415,137	Nov. 12	1438	376	49	1031
Steam-engine	C. P. Deane	413,711	Oct. 29	3857	746	49	586
Steam-engine	C. W. Foster	415,003	Dec. 24	2735	735	49	1933
Steam-engine	H. N. Gale	416,454	Dec. 3	148	122	49	1460
Steam-engine	A. S. Hodges	413,231	Oct. 22	2149	558	49	438
Steam-engine	E. Huber	414,045	Oct. 29	3350	873	49	688
Steam-engine	J. A. Shepard	412,047	Oct. 1	386	100	49	78
Steam-engine	J. B. Stanwood	417,633	Dec. 17	2947	597	49	1926
Steam-engine	R. H. Thurston	414,460	Nov. 5	431	109	49	827
Steam-engine	C. A. Wheeler	412,217	Oct. 1	631	164	49	126
Steam-engine	W. O. Worth	412,444	Oct. 8	992	253	49	196
Steam-engine. Oscillating	C. A. Graham	413,506	Oct. 22	2556	662	49	517
Steam-engine. Oscillating	C. B. Rice	413,965	Oct. 29	3225	843	49	663
Steam-generating apparatus	W. L. Taylor	413,051	Oct. 1	320	101	49	79
Steam-generator	V. W. Blanchard	413,908	Oct. 29	3140	820	49	613
Steam-generator	J. E. Culver	414,297	Nov. 5	172	43	49	772
Steam-generator	J. E. Culver	417,385	Dec. 17	1841	494	49	1748
Steam-generator	W. H. Fletcher	416,117	Dec. 24	2963	777	49	1971
Steam-generator	C. J. Jilson	415,157	Dec. 31	3079	808	49	2002
Steam-generator	O. Kelsey	417,385	Dec. 17	1742	468	49	1731
Steam-generator	H. P. Osbourne	412,037	Oct. 1	373	96	49	75
Steam-generator	E. E. Roberts	415,397	Nov. 19	1966	485	49	1111
Steam-generator	R. Scott	416,957	Dec. 10	1191	325	49	1613
Steam-generator or evaporator	G. W. Baird	417,803	Dec. 24	3465	954	49	1880
Steam-generator. Safety	S. W. Ludlow	413,284	Oct. 22	2235	580	49	456
Steam-heater	R. G. Brown	411,885	Oct. 1	160	412	49	33
Steam-meter	E. J. Wood	418,329	Dec. 31	3298	892	49	2046
Steam-separator	W. Burnham	414,773	Nov. 5	283	71	49	795
Steam-trap	J. Correll	413,494	Oct. 22	2537	657	49	513
Steam-trap	B. Thoenes	413,109	Oct. 15	1948	509	49	383
Steam-trap	W. P. and R. P. Thompson	412,903	Oct. 15	1652	431	49	335
Steam-trap. Return	J. McGwin	418,213	Dec. 31	3110	815	49	2009
Steel hodies having layers of different carbons. Manufacturing	J. Pedler	412,893	Oct. 15	1637	427	49	332
Steel direct from the ore. Apparatus for the production of	W. F. M. McCarty	414,654	Nov. 5	730	189	49	884
Steel. Making	R. F. Ludlow	412,768	Oct. 15	1464	383	49	300
Steering-gear for vessels	J. C. and S. Lake	418,032	Dec. 24	2926	745	49	1946
Stencils, &c. Producing	W. H. Cothren	414,104	Oct. 29	3436	894	49	707
Stenographic pen. Electric	A. S. Cooper	417,407	Dec. 17	1866	500	49	1733
Stenographs. Automatic ribbon-vel for	F. F. Main	417,361	Oct. 17	1410	468	49	1749
Stereotype and electrolyte plates. Machine for heating	J. Manning	418,292	Dec. 31	3228	844	49	2032
Stereotype-forms. Interchangeable plate for	J. I. C. Clarke	415,615	Nov. 19	2204	582	49	1155
Stereotype-models. Making	J. R. Cummings	412,956	Oct. 8	735	195	49	153
Stereotype-plate separating, trimming, and grooving machine	J. R. Cummings	416,716	Dec. 10	850	230	49	1545
Stereotype-plates. Machine for bending	W. Scott	415,621	Nov. 26	2535	663	49	1233
Sticker-head	A. Crampton	418,366	Dec. 31	3332	875	49	2007
Strap	E. M. Turner	416,765	Dec. 10	915	246	49	1558
Strap-loop	W. P. Young	412,825	Oct. 15	1537	402	49	314
Stitches. Forming	A. A. Cluming	413,617	Oct. 29	3764	718	49	569
Stock-trough	W. P. Tins	416,307	Dec. 3	235	61	49	1415
Stocking	R. M. Appleton	414,479	Nov. 5	461	117	49	834
Stocking	J. F. Sleeper and J. P. Miller	415,581	Nov. 19	2183	569	49	1176
Stocking	J. F. Sleeper and J. P. Miller	415,582	Nov. 19	2184	570	49	1176
Stocking and knitting the same	J. H. Young	412,056	Oct. 1	401	163	49	80
Stockings. Manufacturing	J. F. Sleeper and J. P. Miller	415,579	Nov. 19	2181	568	49	1176
Stockings. Manufacturing	J. F. Sleeper and J. P. Miller	415,580	Nov. 19	2182	569	49	1176
Stoker. Mechanical	I. H. Davis	412,241	Oct. 8	673	178	49	140
Stone. Apparatus for hardening artificial	G. Richardson	413,363	Oct. 22	2190	571	49	447

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Vol.	Page.
				Spec.	De'g.		
Stone. Artificial	A. C. Ponton	415,794	Nov. 26	2498	332	49	1245
Stone. Compound for artificial	C. M. Eghert	414,365	Nov. 5	298	332	49	798
Stone-crusher	W. H. Howland	417,918	Dec. 24	2645	699	49	1912
Stone-cutting machine	C. I. Schoone	416,507	Dec. 3	525	142	49	1474
Stone-gatherer	D. S. Stoddard	416,515	Dec. 3	544	147	49	1477
Stone-polishing head	J. Klar	416,462	Dec. 3	459	125	49	1462
Stone-sawing machines. Device for supplying water and sand to	B. M. and M. R. Hall	414,529	Nov. 5	537	138	49	848
Stone-sawing machines. Mechanism for feedingsand and water to	J. H. Frenier and L. Leblanc	415,432	Nov. 19	1961	510	49	1131
Stool. Milking	W. M. Madden	417,929	Dec. 24	3671	704	49	1916
Stop or shut-off. Incased	S. Smith	415,665	Nov. 19	3340	610	49	1207
Stopper: See Bottle-stopper. Can-stopper. Flue-stopper. Leak-stopper. Pipe-stopper.							
Stopper-holding devices. Device for inserting	J. J. Sands	417,446	Dec. 17	1919	512	49	1764
Store or shop fixture	M. H. Wilson	416,980	Dec. 10	1214	333	49	1619
Store-service apparatus	S. W. Barr	413,476	Oct. 22	2507	649	49	207
Store-service apparatus	S. W. Barr	413,477	Oct. 22	2510	650	49	509
Store-service apparatus	S. W. Barr	413,478	Oct. 22	2512	651	49	508
Store-service apparatus	S. W. Barr	413,479	Oct. 22	2513	651	49	509
Store-service apparatus	S. W. Barr	413,480	Oct. 22	2515	651	49	509
Store-service apparatus	J. H. Barr	413,481	Oct. 22	2516	651	49	510
Store-service apparatus	A. Beach	416,546	Dec. 3	591	146	49	1487
Store-service apparatus	G. L. Boynton	418,436	Dec. 31	3457	904	49	3079
Store-service apparatus	J. M. Caille	415,406	Nov. 19	1881	490	49	1115
Store-service apparatus	J. T. Cowley	414,107	Oct. 29	3441	855	49	708
Store-service apparatus	J. T. Cowley. (Release)	11,049	Dec. 24	3016	791	49	1981
Store-service apparatus	W. S. Drvall	415,099	Nov. 12	1384	362	49	1021
Store-service apparatus	E. L. Giles	414,152	Oct. 29	3511	913	49	722
Store-service apparatus	W. Mendenhall	413,829	Oct. 29	3061	797	49	626
Store-service apparatus	W. Mendenhall	413,660	Oct. 29	3064	798	49	627
Store-service apparatus	E. A. Borke	418,920	Dec. 31	3137	799	49	1819
Store-service apparatus	A. F. L. Willatowsky	417,764	Dec. 24	2424	639	49	2049
Store-service apparatus	T. Wilson, Jr.	413,991	Oct. 29	3204	853	49	669
Store-service apparatus	J. H. Barr	413,906	Oct. 29	3276	855	49	673
Store-service apparatus. Buffer for	J. P. Turrell and A. B. Taylor	413,377	Oct. 22	2195	512	49	1448
Store-service apparatus. Switch for	W. T. Rand	414,750	Nov. 12	913	236	49	928
Store-service apparatus	T. P. Farmer	414,632	Oct. 29	3335	869	49	686
Store-service buffer	L. C. Powers	413,700	Oct. 29	2969	774	49	607
Stove	D. Hubbard	412,505	Oct. 8	1064	278	49	215
Stove	S. S. Utter	416,379	Dec. 3	191	51	49	1405
Stove and reservoir therefor. Oil	J. S. Williams	414,740	Nov. 12	861	225	49	917
Stove attachment. Gas	L. Stockstrom	417,660	Dec. 17	2178	579	49	1813
Stove attachment. Gasoline	C. A. Stockstrom. (Release)	11,037	Oct. 22	2753	713	49	357
Stove attachment. Vapor	J. G. Young, Jr.	417,130	Dec. 10	1455	395	49	1666
Stove. Coal-oil	G. Roberts	416,328	Dec. 3	124	34	49	1393
Stove. Cooking	E. S. Carr	415,938	Nov. 26	2722	712	49	1203
Stove. Cooking	W. A. Greene	417,913	Oct. 1	306	33	49	42
Stove for railway-cars. Heating	R. J. McAuley and H. B. Frisbie	414,633	Nov. 5	788	188	49	884
Stove. Gas	J. Wybawa	415,491	Nov. 26	2633	689	49	1273
Stove-grate	W. A. Church	415,665	Nov. 19	3202	599	49	1199
Stove-grate	C. W. McEntchen	418,294	Dec. 31	3231	845	49	2033
Stove-grate. Adjustable	H. W. Bodeman	417,308	Dec. 10	1569	425	49	1688
Stove. Heating	O. W. Bennett and W. B. Muller	416,069	Nov. 26	2956	771	49	1340
Stove. Heating	G. F. Elley	415,653	Oct. 29	2771	730	49	570
Stove. Hot-air heating	S. D. Burlingame	412,596	Oct. 8	1196	314	49	242
Stove. Hot-blast	V. O. Strobel	413,247	Oct. 22	2167	564	49	442
Stove. Hot-blast	V. O. Strobel	414,734	Nov. 12	820	238	49	1415
Stove. Hot-blast	V. O. Strobel	415,226	Nov. 19	1603	413	49	1062
Stove. Magazine	G. G. Wolfe	413,272	Oct. 22	2203	574	49	449
Stove. Oil	J. Stannard	413,689	Oct. 29	2829	727	49	580
Stove or furnace	J. T. Robbins	418,295	Dec. 31	3130	821	49	2013
Stove-pipe cleaner	S. A. Rem and J. M. Jackson	414,812	Nov. 12	961	249	49	937
Stove-pipe coupling	J. E. Elliott	417,670	Dec. 17	2274	603	49	1811
Stove-pipe fastening	C. P. Elliott	414,200	Nov. 5	34	7	49	145
Stove-pipe hanger	C. W. Eunson	413,750	Oct. 22	3046	791	49	623
Stove-pipe shelf	W. H. Julian	413,520	Oct. 22	2575	667	49	520
Stove-pipe thimble	J. L. Culbertson	417,154	Dec. 10	1492	406	49	1073
Stove-pipe thimble and fastener. Combined	J. Baer	417,531	Dec. 17	2654	529	49	1793
Stove-pipe thimble. Rotary adjustable	E. E. Shaffer	412,673	Oct. 8	1317	344	49	305
Stove roller attachment	G. D. Hamilton	412,222	Oct. 8	687	181	49	143
Stove. Solar	W. Calver	412,725	Oct. 15	1403	367	49	290
Stove. Straw-burning	M. A. E. Myers	417,579	Dec. 24	2599	629	49	1405
Stove. Straw-burning	E. O. Peyton	415,128	Nov. 12	1414	369	49	1097
Stove straw-burning attachment	R. L. Herman	413,664	Oct. 29	2781	723	49	572
Stove. Straw-burning heating and cooking	D. Morrison	414,563	Nov. 5	588	151	49	873
Stove. Trash-burning	G. C. Werner	414,931	Nov. 19	1145	132	49	957
Stove. Vapor-burner	H. Ruppel	415,568	Nov. 19	3101	564	49	1172

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.
				Spec.	Draw.	
Stove. Vapor-burner.	H. Rappel	416,040	Nov. 26	2874	751	49 1324
Stove. Vapor-burning.	H. M. Vaughan	414,736	Nov. 12	2857	49	49 916
Stoves. Air-warming attachment for	P. J. Hilby	413,397	Oct. 22	2365	612	49 478
Stoves. Automatic heating and lighting device for vapor.	J. A. Marsh	413,809	Oct. 29	2991	779	49 611
Stoves. Burner for tops of	W. Vogel	416,878	Dec. 10	1098	393	49 1592
Stoves. Cleaning hot-blast	F. W. Gordon	417,019	Dec. 10	1284	351	49 1632
Stoves. Generator-burner for gasoline.	E. D. Sheets	416,508	Dec. 3	927	143	49 1474
Stoves. Heat-radiator for oil	M. E. Smith	416,244	Dec. 31	3161	828	49 2019
Stoves. Water-heating attachment for gas.	J. H. McNutt	417,197	Dec. 10	1551	422	49 1665
Strainer	G. W. Rush	416,652	Dec. 10	1168	323	49 1813
Strainer for hedge-water. Basket	H. P. Norton	414,240	Nov. 5	93	31, 32	49 757
Strainer. Funnel.	L. Jr. and F. Bnob	417,628	Dec. 17	2217	589	49 1821
Strainer. Milk.	R. Porter	417,364	Dec. 17	2154	573	49 1808
Strap.						
See Book-strap.	Shawl-strap.					
Hand-strap.	Trunk-strap.					
Strap attachment						
Straw-burner	W. Nelson	414,916	Nov. 12	1125	392	49 968
Straw-carrier. Endless	C. W. Leonard	415,035	Dec. 24	2829	746	49 1947
Straw-cutter	J. S. Baker	415,434	Nov. 19	1934	500	49 1123
Straw-cutter	H. Böhm	414,969	Nov. 12	1209	314	49 984
Straw-cutter	J. and P. Rahm	415,040	Oct. 1	376	97	49 76
Straw-stacker	J. H. and M. L. Fleisher	416,580	Dec. 3	636	178	49 1500
Straw-stacker	J. M. Smith	412,303	Oct. 8	761	197	49 156
Street or station indicator	M. Anthony	418,347	Dec. 31	3325	868	49 2052
Street or station indicator	J. J. Jemne	418,347	Dec. 31	3325	868	49 2052
Street-receiver	T. Dark	416,850	Dec. 10	1012	273	49 1577
Street-sweeping machine.	C. Gilmann	418,336	Oct. 8	817	211	49 166
Street-sweeping machine.	S. Sturges	418,143	Dec. 31	3907	788	49 1979
Street water-sprinkler	R. Exley	417,714	Dec. 24	2342	618	49 1853
Strength-tester. Coin-controlled.	G. Seeding	415,949	Nov. 26	2738	716	49 1296
Stripping machine. Cylinder	R. A. Paine and D. Baker, Jr.	414,568	Nov. 5	593	153	49 858
Studs. Manufacture of lacing.	I. F. Peck	415,297	Nov. 19	1719	448	49 1084
Stuffing-box	T. Tripp	413,483	Nov. 19	2013	523	49 1132
Stamp-extracting apparatus.	G. and E. Deo	417,711	Dec. 24	2338	617	49 1842
Stamp-extractor	J. A. Woodworth	412,819	Oct. 15	1528	399	49 313
Stylus	S. H. Cole	417,321	Dec. 17	1601	424	49 1794
Sucker-rod elevator	A. K. Abrams	416,246	Dec. 3	135	38	49 1385
Sugar. Apparatus for packing cut	W. Baur and J. V. V. Booraem	416,319	Dec. 3	250	64	49 1418
Sugar-mill.	J. G. Hudson	416,623	Dec. 3	707	191	49 1511
Sugar. Refining.	F. Bander	416,709	Dec. 10	837	292	49 1544
Sugar-sap evaporator	C. Hall and W. H. Wright	415,635	Nov. 19	2266	581	49 1192
Supporter:						
See Garment-supporter. Skirt-supporter.						
Knitted supporter.						
Supporting clamp	F. A. Williams	415,629	Nov. 19	2345	611	49 1208
Surf-power. Apparatus for utilizing	J. Ringen	418,500	Dec. 31	3697	966	49 2127
Surf-power machine.	H. E. Thomas	416,972	Dec. 10	1205	330	49 1617
Surfacing and polishing machine	J. H. Shufels	415,548	Oct. 8	1116	292	49 227
Surge-reliever	W. Murphy	412,113	Oct. 1	472	123	49 95
Surgical chair	H. H. Ehrleg	412,371	Oct. 8	867	226	49 176
Surgical instruments of glass. Constructing	F. A. Stofmann	418,247	Dec. 31	3164	829	49 2020
Surgical splint.	G. W. Turner	412,215	Oct. 1	621	161	49 124
Suspender-end	W. F. Osborne	413,541	Oct. 22	2299	673	49 525
Suspenders	J. Katzenberg	412,097	Oct. 1	453	118	49 91
Suspenders	A. A. Mandell	412,203	Dec. 31	3100	813	49 2007
Suspending device	G. W. McGill	414,074	Dec. 29	3396	883	49 698
Swabber	W. H. Lanrock	412,102	Oct. 8	460	139	49 93
Sweat pad.	J. S. Cnsson	413,648	Oct. 29	2765	718	49 505
Sweat-pad fastener.	W. Williams	417,893	Dec. 24	2615	689	49 1849
Switch.						
See Automatic switch.	Interlocking switch.					
Electric switch.	Railway-switch.					
Frogless switch.	Telephone-switch.					
Switch-board	J. F. McLaughlin	413,083	Oct. 15	1908	499	49 396
Switch-board and connection.	F. W. Rice, Jr., and A. L. Rohrer	411,950	Oct. 1	228	57	49 46
Switch-operating mechanism. Interlocking	F. P. Abercrombie	411,880	Oct. 1	149	39	49 31
Switches and signals. Ground-lever for	J. T. Hamby	416,162	Dec. 3	22	7	49 1373
Swivel-joints. Making tubular	K. L. Bastian	415,094	Nov. 26	2335	615	49 1217
Syringe	R. B. Wilder	412,776	Dec. 31	3065	804	49 1959
Syringe. Pumping	C. Eggers	411,954	Oct. 1	259	67	49 32
Syringe. Rubbing	A. C. Eggers	411,792	Oct. 1	27	9	49 9
Table.						
See Brick-machine mold.	Ironing-table.					
Table.	Kindergarten-table.					
Drawing-table.	Saw-table.					
Extension-table.	Turn-table.					
Folding table.						
Table	J. Cornell	416,398	Dec. 3	369	98	49 1442
Table and bench. Combined	H. Wehlm	415,374	Nov. 19	1934	478	49 1105
Table, desk, or store-counter seat	J. A. Heard and G. S. Mitchell	413,510	Oct. 22	2262	663	49 518
Table-game attachment	J. A. R. Stundell	412,690	Oct. 29	2831	734	49 580
Tablet	F. B. Gilbe	412,176	Dec. 31	3065	804	49 1959
Tablet. Black	C. E. Perry	413,147	Oct. 15	2013	524	49 405
Tacking implement. Hand	C. A. Millener and W. D. McRae	416,415	Dec. 3	392	105	49 1448
Tacking-tool	R. C. Lambert	412,762	Oct. 15	1456	361	49 299
Tacks, nails, &c. Mechanism for distributing	J. E. Matzinger	415,726	Nov. 26	2404	628	49 1227
Tag.	E. Anderson	413,747	Oct. 29	2905	758	49 596

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Page.	Dr.	Vol.	Page.
Tag. Address.	R. J. Loughery	416,472	Dec. 3	472	128	49	1464
Tag and tag-fastener.	P. Tremouliere	416,813	Dec. 10	986	267	49	1572
Tag. Cattle.	D. H. Talbot	412,431	Oct. 8	846	248	49	192
Tag-fastener	C. M. Richardson	415,979	Nov. 26	2778	727	49	1305
Tag-holder	S. Bauman	417,552	Dec. 24	3335	673	49	1859
Tag. Laundry.	N. Garst	418,610	Dec. 31	3724	972	49	2133
Tailor's fitting-clasp	N. S. Sheffield	412,046	Oct. 1	385	99	49	78
Tailor's gas-iron	D. A. Upham and T. J. Fay	413,354	Oct. 22	2314	607	49	474
Tally. Grain.	F. M. Roush	413,835	Oct. 29	3028	169	49	619
Tank.							
See Flushing-tank. Sewer-flushing tank.							
Tank for sanitary basins.	P. J. White	413,500	Oct. 22	2674	694	49	540
Tank-heater.	C. F. Edminster	414,300	Nov. 12	944	244	49	3044
Tank-heater.	J. C. Goodrich	414,398	Nov. 5	319	81	49	803
Tank-hoop	T. C. Bartlett	417,381	Dec. 17	1836	492	49	1747
Tanning	G. H. Russell	411,832	Oct. 1	326		49	46
Tanning composition	G. H. Russell	411,831	Oct. 1	325		49	46
Tap and holder therefor.	C. Fitterich	412,952	Oct. 15	1719	449	49	348
Tea or coffee pot or similar vessel	A. H. Bowman	413,748	Oct. 29	2805	756	49	596
Teaching addition. Chart for.	A. L. Gillis	416,593	Dec. 3	665	179	49	1501
Teaching. Music-indicator for.	J. Mac Master, Jr.	417,734	Dec. 24	2375	625	49	1859
Teaching penmanship. Appliance for.	J. Delay	414,300	Nov. 5	179	45	49	773
Teeth. Preparing porcelain.	A. H. Parker and A. H. Stoddard	415,380	Dec. 31	3371		49	2061
Telegraph-instrument. Mechanical.	J. H. Bunnell	418,443	Dec. 31	3466		49	3061
Telegraph-key	E. S. Crull	413,848	Oct. 29	3044	703	49	622
Telegraph-repeater	R. J. McHenry	415,417	Nov. 19	1899	494	49	1119
Telegraph-repeater. Fire-alarm.	C. A. Skilton	415,578	Nov. 18	2178	568	49	1175
Telegraph-transmitter	O. D. LaDow	416,732	Dec. 10	869	235	49	1569
Telegraphs. Tail-fale apparatus for ship.	W. T. W. Thackerny and I. Hurn	414,343	Nov. 5	241	60	49	787
Telegraphy. Quadruplex.	C. P. Carr	414,492	Nov. 5	477	121	49	837
Telegraphy. Quadruplex.	C. L. Healy	416,384	Dec. 31	3216	841	49	2030
Telemeter. Induction.	P. Moennich	416,006	Nov. 26	2815	736	49	1313
Telephone	E. H. Lyon	416,476	Dec. 3	477	129	49	1465
Telephone-address index and advertising device.	J. F. O'Brien	413,371	Oct. 22	2370	613	49	479
Telephone call-bells. Electric mechanism for operating.	F. W. A. Schneider	414,085	Oct. 29	3410	886	49	701
Telephone-diaphragm.	A. W. Hall	413,782	Oct. 29	2956	771	49	605
Telephone-exchange apparatus	J. J. O'Connell	417,271	Dec. 17	1659	450	49	1715
Telephone-exchange. House	W. M. Goodridge	417,018	Dec. 10	1283		49	1632
Telephone-exchange. Mechanical.	G. F. Shaver	414,170	Oct. 29	3338	751	49	728
Telephone-exchange system.	C. E. Scribner	415,573	Nov. 19	2169	567	49	1174
Telephone. Mechanical.	W. Bates	414,380	Nov. 5	149	37	49	767
Telephone. Mechanical.	A. M. and T. R. Rosebrugh	413,653	Oct. 8	1288	336	49	260
Telephone. Multiple.	A. M. and T. R. Rosebrugh	417,511	Dec. 17	2033	543	49	1786
Telephone-receiver.	J. W. Banta	415,700	Nov. 26	2366	617	49	1220
Telephone-receiver.	C. Selden	413,308	Oct. 22	2870	391	49	462
Telephone-receiver holder.	H. M. Wilson	414,961	Nov. 12	1193	311	49	961
Telephone-station apparatus	B. Abdank-Ahakanowicz	412,569	Oct. 8	1163	305	49	936
Telephone-supporting device	S. J. Adams	414,132	Oct. 29	3474	902	49	715
Telephone-switch	J. Sack	416,734	Dec. 10	901	243	49	1535
Telephone-transmitter	J. C. Eichmeyer	417,009	Dec. 10	1367	346	49	1689
Telephonic instrument.	W. C. Barney	417,060	Dec. 17	2261		49	1828
Telescope	J. Paoli	416,370	Dec. 3	174	47	49	1403
Telescope-bag	C. W. Beyer	412,900	Oct. 15	1659	433	49	336
Telescope-objective	C. S. Hastings	415,040	Nov. 12	1308	341	49	1094
Temperature-regulating apparatus	D. W. Thompson	415,007	Nov. 12	1257	339	49	993
Temperature-regulator	E. W. Beebe	413,013	Oct. 1	343	89	49	69
Temperature-regulator	R. H. Draper	412,775	Oct. 29	2897	768	49	603
Temperature-regulator.	L. Sherman	412,547	Oct. 8	1115	282	49	924
Tennis-scorer	W. G. Phelps	418,055	Dec. 24	2858	752	49	1953
Tenon-cutting machine	A. Hendey	418,008	Dec. 3	683	184	49	1505
Tenoning-cutting	W. K. Fox	413,364	Oct. 22	2361	611	49	477
Tenoning-machine	L. F. Parks	415,394	Nov. 19	1801	485	49	1110
Tenoning-machine	W. M. Pearce	417,300	Dec. 10	1556	423	49	1686
Tension-registering wrench	J. Burrell	414,615	Nov. 5	670	175	49	873
Tent	J. Burrell	412,161	Oct. 29	2881	751	49	110
Tent	G. P. Palmer	413,730	Oct. 29	2881	751	49	110
Terra-cotta construction	E. M. Turner	415,886	Nov. 26	2345	665	49	1254
Terry fabric	J. L. Luch	414,716	Nov. 12	828	215	49	911
Theater appliance.	J. Mellor	418,306	Dec. 31	3104	621	49	2006
Theatrical appliance for optical illusions	O. O. Leahhart	415,721	Nov. 26	2363	621	49	1225
Theatrical appliance for optical illusions	W. B. Wood	415,084	Nov. 12	1364	357	49	1016
Theatrical purposes. Metallic corset for.	W. B. Wood	415,085	Nov. 12	1366	357	49	1016
Therapeutic appliance. Electro.	H. H. Kane	415,274	Nov. 19	1876	494	49	1076
Therapeutic appliance. Electro.	J. S. Mellon	412,196	Oct. 1	599	156	49	180
Therapeutic pad	G. H. Berns	414,967	Nov. 12	1306	313	49	983
Thermic motor	C. F. L. Gardie	412,882	Oct. 15	1618	423	49	328
Thermo-electric generator.	W. S. D. Roberts and J. S. Mollison	412,669	Oct. 8	1311	342	49	264
Thermo-electric indicator.	F. W. Wieschrock and E. Huber	415,758	Nov. 26	2452	640	49	1236
Thermometer	A. P. Trotter	416,875	Dec. 10	1077	641	49	1500
Thermometer	J. L. Nix	412,115	Oct. 1	474	124	49	85
Thermometer	W. P. Powers	416,947	Dec. 10	1178	322	49	1611
Thermometer	A. G. Sargent	416,503	Dec. 3	320	141	49	1473

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	De.	Vol.	Page.
Thermostat.....	H. E. Thompson.....	414,967	Nov. 5	130	31	49	763
Thermostatic alarm.....	C. H. Shaffer.....	414,968	Nov. 5	130	31	49	763
Thill-coupling.....	H. Barnard.....	417,969	Dec. 24	2731	718	49	1267
Thill-coupling.....	T. L. Barr.....	413,381	Oct. 22	2380	616	49	481
Thill-coupling.....	G. L. and F. S. Blackman.....	413,427	Oct. 22	2326	634	49	511
Thill-coupling.....	N. M. Compton and W. H. Longoey.....	413,071	Oct. 1	431	110	49	65
Thill-coupling.....	B. W. Conroy.....	414,497	Nov. 5	1263	373	49	838
Thill-coupling.....	J. Cosgrove.....	413,333	Oct. 22	2310	600	49	409
Thill-coupling.....	F. R. Cox.....	412,603	Oct. 8	1208	318	49	244
Thill-coupling.....	G. W. Dicksey.....	413,614	Oct. 22	2713	705	49	549
Thill-coupling.....	O. J. Holtzman and T. Forsyth.....	414,946	Nov. 12	1469	305	49	977
Thill-coupling.....	C. M. Hoover.....	416,619	Dec. 3	700	189	49	1500
Thill-coupling.....	J. W. Howgate.....	417,642	Dec. 17	2236	594	49	1284
Thill-coupling.....	H. H. Mottinger.....	413,648	Oct. 8	1282	334	49	238
Thill-coupling.....	T. F. Ratchford.....	416,647	Dec. 3	744	292	49	1518
Thill-coupling.....	A. V. Smith.....	414,360	Nov. 5	121	32	49	762
Thill-coupling.....	A. St. John.....	412,863	Oct. 15	1392	415	49	334
Thill-coupling.....	T. R. Trombley.....	416,196	Dec. 3	68	20	49	1342
Thill-coupling.....	S. H. and E. Tyson.....	413,378	Oct. 22	2376	616	49	480
Thill-coupling.....	T. A. Watrous.....	413,379	Oct. 22	2379	616	49	480
Thill-coupling.....	D. D. Whitney.....	415,180	Nov. 12	1540	396	49	1041
Thill-coupling.....	F. R. Wilshire.....	414,666	Nov. 5	151	103	49	888
Thill-coupling.....	W. E. Murbarger.....	416,973	Dec. 10	1207	331	49	1617
Thill-couplings. Anti-rattler for.....	W. P. Tracy.....	417,072	Dec. 10	2002	593	49	1349
Thill-support.....	W. H. Glendenning.....	414,530	Nov. 5	518	132	49	845
Thill-support.....	G. A. Smith.....	412,679	Oct. 8	1327	346	49	267
Thistles, &c. Components for killing and.....	G. A. Burton.....	417,229	Dec. 17	1399	499	49	1704
Thrasher and clover-seed huller. Combined grain.....	C. H. Horton.....	412,325	Oct. 8	894	193	49	144
Thrashing and separating machine.....	G. White.....	414,738	Nov. 12	859	222	49	917
Thrashing-machine.....	L. Bronsen.....	418,365	Dec. 31	3351	874	49	2036
Thrashing-machine.....	J. Galland.....	411,803	Oct. 1	37	12	49	11
Thrashing-machine.....	R. E. Gustafson.....	417,175	Dec. 10	1602	414	49	1070
Thrashing-machine.....	I. Mead.....	416,039	Dec. 24	2633	747	49	1918
Thrashing-machine.....	J. M. Sallee.....	417,745	Dec. 24	2293	630	49	1602
Thrashing-machine.....	H. A. Wetzel.....	418,430	Dec. 31	3449	901	49	2077
Thrashing-machine attachment.....	C. Doering.....	418,312	Dec. 31	3268	873	49	2041
Thrashing-machine band-cutting feeder.....	C. H. Anspach and J. J. Wilhelm.....	412,715	Oct. 15	1389	363	49	287
Thrashing-machine brake.....	J. W. Lefevre and L. D. Young, Jr.....	412,515	Oct. 8	1076	289	49	218
Thrashing-machine grain-elevating attachment.....	R. H. Abbey.....	413,045	Oct. 15	1658	446	49	375
Thrashing-machine or separator. Metallic.....	I. T. Barton.....	418,369	Dec. 31	3362	895	49	1990
Thrashing-machine straw-carrier.....	J. H. Fulton.....	413,351	Oct. 22	2172	565	49	413
Thrashing-machine straw-carrier.....	R. R. Howell.....	416,785	Dec. 10	1446	255	49	1561
Thrashing-machines. Tool for the cylinders of.....	W. H. and J. Butterworth, Jr.....	415,156	Nov. 12	1936	375	49	1030
Threshold.....	D. Dord.....	414,369	Nov. 5	120	35	49	762
Ticket-case.....	F. I. Hart.....	415,457	Nov. 19	1969	511	49	1123
Ticket-holder.....	J. Geisenheimer.....	417,166	Dec. 10	1267	410	49	1676
Ticket-issuing apparatus.....	W. A. Valentine.....	416,541	Dec. 3	555	150	49	140
Ticket-reel.....	C. D. Grimes.....	414,403	Nov. 5	330	82	49	805
Ticket-registering machine.....	I. Pforzheimer.....	418,307	Oct. 22	2109	548	49	430
Tickets. Apparatus for printing, registering, and delivering passenger transportation.....	J. P. Dunn and J. Brady.....	417,994	Dec. 24	2765	731	49	1935
Tickets, cards, &c. Automatic vender for.....	C. H. Bingham.....	412,591	Oct. 8	1187	311	49	240
Tidy-holder.....	J. R. and J. Ferguson.....	415,770	Nov. 26	2468	644	49	1239
Tie.....	See Bale-tie. Railway-rail tie.						
Tie-bale-tie.....	J. A. Riley.....	415,283	Nov. 19	1693	439	49	1079
Tie-fastener.....	A. Metzner.....	414,719	Nov. 12	833	216	49	912
Tie.....	J. Jacobs.....	418,618	Dec. 31	3734	976	49	2135
Tie. Illuminating.....	W. J. Mason.....	415,152	Nov. 12	1378	330	49	1465
Tie. Illuminating.....	C. B. Nelson.....	417,220	Dec. 17	1620	450	49	1070
Tie. Metallic crest.....	L. Crull.....	417,233	Dec. 17	1602	434	49	1704
Tiles to walls. Uniting.....	H. L. Norton and F. W. Cook.....	417,501	Dec. 17	2017	538	49	1783
Time-detector. Watchman's electric.....	T. Clark.....	417,367	Dec. 24	2755	726	49	1933
Time-piece. Regulation-indicator for.....	H. N. Dawson.....	412,242	Oct. 8	875	179	49	140
Tin-folder. Quadrule.....	H. S. Granis.....	413,773	Oct. 22	2250	769	49	604
Tinmith's squaring-shears. Holding attachment for.....	S. S. Seeger.....	414,592	Nov. 5	635	165	49	866
Tire apparatus.....	A. Worden.....	415,751	Nov. 26	2468	644	49	1239
Tire-bolt wrench.....	L. Washington.....	416,300	Dec. 3	72	21	49	1383
Tire-heater.....	O. W. Chast.....	413,296	Oct. 22	2253	584	49	429
Tire-tightener.....	C. O. Davidson.....	413,458	Oct. 22	2338	657	49	513
Tire-tightener.....	F. S. Holt.....	417,382	Dec. 17	1738	468	49	1730
Tire-tightener.....	A. E. Leonard.....	411,866	Oct. 1	134	31	49	28
Tire-tightener.....	J. McAllister.....	416,039	Nov. 26	2273	751	49	1334
Tire. Vehicle-wheel.....	H. M. Du Bois.....	411,791	Oct. 1	26	9	49	9
Tire. Vehicle-wheel.....	H. M. Du Bois.....	413,601	Oct. 22	2378	658	49	513
Tires for carriage-wheels. Machine for grooving.....	J. Shaw.....	412,801	Oct. 15	1206	392	49	873
Tires. Utilizing worn-out railway.....	J. Pedder.....	416,491	Dec. 3	562	136	49	1470
Tobacco-cutter. Rotary.....	A. M. Whitney.....	417,962	Dec. 24	2718	716	49	1925
Tobacco-hanger.....	W. H. Snow.....	415,309	Dec. 24	2577	679	49	1298
Tobacco-hanger.....	P. B. Farmer.....	413,393	Oct. 22	2339	622	49	485
Tobacco. Hanging.....	S. W. Reynolds.....	414,845	Nov. 12	1023	264	49	949
Tobacco. Metallic fastener for.....	F. Grill.....	415,633	Nov. 19	2224	550	49	1191
Tobacco. Package for.....	J. A. Mason and J. Hartner.....	411,961	Oct. 1	1070	456	49	1110
Tobacco-pails. Cell-case for.....	H. J. Forster.....	418,511	Dec. 31	3572	933	49	2104
Tobacco-pipe.....	D. Peters.....	412,600	Oct. 8	1297	339	49	368

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Tobacco stripping and booking machine	J. R. Williams.	418,663	Dec. 31	3801	990 991 992	49	2148
Toilet appliance	J. S. Parrish.	416,480	Dec. 3	500	136	49	1470
Toilet article	W. B. Gwyn.	414,527	Nov. 5	335	137	49	439
Toilet-case	L. B. Martin.	413,075	Oct. 15	1894	496	49	381
Toilet-lotion	E. C. Summerhayes.	415,849	Nov. 26	2576	496	49	1360
Toluadine-blue. Manufacture of	G. Dändliker and H. A. Bernthsen.	416,955	Nov. 26	2896	496	49	1328
Tongue. Fire	G. E. House.	413,183	Oct. 22	2074	540	49	424
Tongue. Roofing	L. L. Sagedorph.	417,948	Dec. 34	2701	711	49	1922
Tongue-bound and making the same	H. L. Gilbert.	416,360	Dec. 3	160	44	49	1399
Tongue tip. Vehicle	H. De Tangle.	415,860	Nov. 26	3591	676	49	1303
Tongue. Vehicle	G. H. Vollhardt.	412,569	Oct. 8	1149	331	49	333
Tongue. Wagon	J. T. Ketchledge.	413,256	Oct. 22	2180	567 568	49	445
Tonic	A. Lorenz.	416,473	Dec. 3	473	496	49	1464
Tonic. Alternative	C. B. Angle.	415,323	Oct. 22	2132	496	49	439
Tonic. Alternative	W. E. Lyons.	412,769	Oct. 15	1466	496	49	391
Tool	J. L. Painter.	415,923	Nov. 26	2899	705	49	1387
Tool-clamp	G. F. Hall.	415,969	Nov. 26	2767	722	49	1302
Tool. Combination	E. D. Ely.	413,180	Oct. 22	3072	539	49	452
Tool. Combination	W. Stone and J. Uhl.	415,338	Dec. 31	3342	878	49	2035
Tool. Combined	O. H. Tack.	418,085	Dec. 24	2908	763	49	1902
Tool. Combined	T. Warren.	416,526	Dec. 3	563	133	49	1482
Tool. Compound	R. B. Stewart.	418,541	Dec. 31	3622	946	49	2113
Tool-handle	G. B. Goddard.	416,394	Dec. 3	606	339	49	1302
Tool-handle	J. S. Jaquith.	412,300	Oct. 8	894	233	49	181
Tool-holder	G. M. O. and J. G. Rehfuß.	414,078	Oct. 29	3401	884	49	699
Tool-holder	H. Schonecke.	415,526	Nov. 26	2702	706	49	1288
Tooth-cleaning implement	C. J. Walsh.	413,001	Oct. 15	1790	468	49	363
Tooth-crown. Artificial	C. M. Richmond.	414,995	Nov. 12	1239	323	49	991
Tooth-pick	J. Adair.	412,225	Oct. 8	645	169	49	135
Tooth-powder package	J. W. Morse.	417,939	Dec. 24	3674	705	49	1917
Tooth-regulator	E. H. Angle.	415,839	Nov. 26	2548	666	49	1255
Top-prop joint	G. W. Harris.	413,754	Oct. 29	2914	758	49	207
Torch and gas-burner key. Combined	G. W. Lindsay.	412,765	Oct. 15	1460	382	49	299
Torpedo. Auto-mobile	A. G. von Buonaccorsi di Pistoja.	413,113	Oct. 15	1933	510 511	49	393
Torpedo. Auto-mobile	A. G. von Buonaccorsi di Pistoja.	413,585	Oct. 22	2662	899	49	508
Torpedo-launching gear	H. P. Elwell.	414,386	Nov. 5	239	76, 77	49	798
Torpedo. Railway	J. H. Berthing.	417,138	Dec. 10	1466	398	49	1668
Torpedo. Self-propelling	A. G. von Buonaccorsi di Pistoja.	413,114	Oct. 15	1962	511	49	395
Torpedoes. Automatic sinking-valve for submarine.	A. G. von Buonaccorsi di Pistoja.	413,115	Oct. 15	1965	512	49	396
Torpedoes. Firing mechanism for.	A. G. von Buonaccorsi di Pistoja.	417,206	Dec. 10	1566	425	49	1638
Torsion-spring for vehicles.	G. Jarrell.	417,041	Dec. 10	1319	361	49	1639
Toy	J. C. Coffey.	418,160	Dec. 31	3048	830	49	2046
Toy	J. E. Scott.	415,176	Nov. 12	1336	395	49	1041
Toy	R. Teichmann.	414,263	Nov. 5	138	31	49	763
(Toy.) Article of amusement and instruction for children.	E. J. Mahoney.	416,171	Dec. 3	36	11, 12	49	1376
Toy bank and coin-operated game	E. Del Valle.	414,633	Nov. 5	495	181	49	878
Toy. Coin-operated	M. Newman and G. H. Bennett.	413,294	Oct. 22	2104	547	49	430
Toy. Electrical	L. Hirsch.	413,058	Oct. 15	1874	480	49	319
Toy. Electrical	H. G. Rogers.	418,069	Dec. 24	2877	756	49	1956
Toy. Electrical	H. G. Rogers and A. M. Coyle.	418,070	Dec. 24	2880	757 758	49	1957
Toy elevator	O. A. Weissenborn.	411,847	Oct. 1	113	29	49	285
Toy girder, bridges, &c. Strip or piece for building	R. Dnane.	413,651	Oct. 29	2769	719	49	570
Toy. Magneto	G. W. Miat.	417,931	Dec. 24	2673	704	49	1917
Toy. Mechanical	J. A. Goodwin.	417,637	Dec. 17	2231	593	49	1823
Toy. Mechanical	F. Jewell.	413,517	Oct. 22	2371	606	49	580
Toy or game	W. P. Lyle.	412,058	Dec. 10	1348	369	49	1645
Toy or model horse	M. Lindner.	417,069	Oct. 1	469	132	49	94
Toy or puzzle	W. M. Tridell.	413,612	Oct. 22	2711	704	49	548
Toy race-track	W. N. McManus.	416,241	Dec. 3	379	73, 74	49	1484
Toys, vehicles, &c. Guideway for traveling.	J. E. Ganse.	417,015	Dec. 10	1275	349	49	1631
Trace-attachment	W. F. Turman.	415,928	Nov. 26	2703	706	49	1288
Trace-carrier	H. W. Getman.	414,917	Nov. 5	3078	802	49	630
Trace-fastener	K. Seifert and K. Malischke.	417,449	Dec. 17	1927	514	49	1763
Trace-fastener. Safety	J. Stephenson.	412,561	Oct. 8	1138	297	49	231
Track-brake	D. D. Reynolds.	418,063	Dec. 24	2967	754	49	1934
Track-cleaner	J. E. Fisher.	414,511	Nov. 5	506	129	49	843
Track-cleaning apparatus	E. M. Birdsall.	415,439	Nov. 19	1931	502	49	1195
Traction-engine	E. E. Callaban.	415,496	Nov. 19	2041	503	49	1197
Traction-engine	A. J. Hart.	417,419	Dec. 17	1853	504	49	1857
Train-signal	D. S. McElroy.	417,438	Dec. 17	1911	510	49	1702
Train-signal. Electric	W. Winder.	412,879	Oct. 22	2958	807	49	634
Tramway with vertical tracks	C. Zipernowsky.	415,891	Nov. 26	2794	721	49	1308
Transferring apparatus	E. and C. E. Lindsley.	418,525	Dec. 31	3596	930 940	49	2108
Transom-lifter	E. Hippard.	417,182	Dec. 10	1329	416	49	1680
Transom-lifter	L. Mount, Jr.	413,227	Oct. 22	2927	807	49	467
Transplanter	J. Broadhead and J. T. Haines.	416,898	Dec. 10	1113	393	49	1397
Transport of material. Apparatus for the	H. Rider.	416,300	Dec. 3	321	37, 38	49	1412
Transporting apparatus	S. Hirschler.	417,825	Dec. 24	3517	662	49	1887

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Trap:							
See Animal-trap.	Lathe dust-trap.						
Back-pressure trap.	Mole-trap.						
Chimney gas-trap.	Sewer-trap.						
Expansion-trap.	Sewer-gas trap.						
Fluid-trap.	Sink-trap.						
Insect trap.	Steam-trap.						
Trap.....	M. B. Nicholson.....	414,818	Nov. 12	969	251	49	938
Trap.....	N. Wall.....	417,298	Dec. 17	1702	458	49	1723
Tray. Ribbon or notion.....	W. N. Cardozo.....	413,171	Oct. 22	2061	536	49	421
Trays. Forming-machine for manufacturing wooden.....	J. E. Tinker and G. T. Benjamin.....	417,990	Dec. 24	2607	{ 686 687 } 690	49	1904
Treadle. Machine.....	A. T. Tregurtha.....	418,661	Dec. 31	3799	990	49	2148
Tree-hox.....	H. M. Whittaker.....	414,175	Oct. 29	3547	927	49	730
Tree-filling device.....	F. H. Brown.....	415,442	Nov. 19	1936	504	49	1136
Trestle.....	J. H. Bank.....	416,544	Dec. 3	388	160	49	1446
Trestle. Coal-stock.....	C. C. Rose.....	414,733	Nov. 12	839	217	49	913
Tricycle.....	A. O. Downs.....	411,790	Oct. 1	34	8	49	8
Tricycle.....	P. Gendron.....	418,005	Dec. 24	2789	736	49	1939
Tricycle.....	F. H. Gibbs.....	416,591	Dec. 3	662	179	49	1501
Tricycle.....	R. T. Huggins.....	414,046	Oct. 29	3352	{ 873 874 } 875	49	689
Tricycle.....	L. Levin.....	417,438	Dec. 17	1897	598	49	1760
Tricycle.....	F. White.....	414,960	Nov. 12	1191	{ 310 311 } 312	49	981
Trimmer:							
See Hedge-trimmer.	Wall-paper trimmer.						
Hand-trimmer.	Wick-trimmer.						
Trimming.....	E. Carrier.....	413,749	Oct. 29	2997	756	49	296
Trimming and slitting machine.....	J. B. Crosby.....	416,829	Dec. 10	1010	373	49	1577
Trimming for the edges of fabrics.....	J. D. Morley.....	413,955	Oct. 29	3213	839	49	660
Trimming for the edges of fabrics.....	R. W. Scott.....	412,546	Oct. 8	1114	291	49	227
Trimming or border for the edges of fabrics.....	J. M. Merrow.....	414,335	Nov. 5	86	20	49	755
Trimming for the edges of fabrics. Making.....	J. D. Morley.....	415,974	Nov. 26	3779	725	49	1394
Trioxymethylene.....	R. Bohn.....	415,088	Nov. 12	1370	.....	49	1017
Tripod.....	J. F. Goddard.....	414,903	Nov. 12	1106	285	49	964
Tripod.....	J. H. Warner.....	413,118	Oct. 15	1970	513	49	397
Tripping-machine. Electro-mechanical.....	T. F. Gaynor.....	414,685	Nov. 12	797	307	49	965
Trolley.....	W. L. Emmet.....	417,998	Dec. 24	2779	733	49	1937
Trolley-holder.....	W. F. Jenkins.....	416,920	Dec. 10	1146	313	49	1604
Trough:							
See Eaves-trough.	Stock-trough.						
Feed-trough.							
Trousers. Device for pressing and stretching.....	C. S. Hirst.....	414,315	Nov. 5	904	51	49	779
Trousers. Impermeable facing for.....	H. T. Simmons and J. P. Naylor.....	416,186	Dec. 3	54	17	49	1380
Trousers-shaping device.....	L. Selling.....	415,375	Nov. 19	2172	267	49	1174
Trousers-stretcher.....	L. M. Hall.....	418,015	Dec. 24	2799	736	49	1941
Truck.....	J. T. Towseley.....	414,344	Nov. 5	243	61	49	787
Truck. Barrel-sheet.....	H. Mattallath.....	413,237	Oct. 22	3156	{ 560 561 } 562	49	439
Truck brake. Hand.....	R. D. Messinger.....	416,846	Dec. 10	1637	92	49	1581
Truck. Cable-car.....	J. Stephenson.....	414,733	Nov. 12	849	220	49	915
Truck. Car.....	W. S. G. Baker.....	415,292	Nov. 26	3636	{ 689 690 } 691	49	1973
Truck. Fire-ladder.....	E. B. Preston.....	411,929	Oct. 1	221	57	49	46
Truck for cable or electric cars.....	S. A. Bemis.....	413,690	Oct. 29	3116	812	49	637
Truck for street-railways.....	W. Joslin.....	415,112	Nov. 12	1309	{ 365 366 } 367	49	1094
Truck. Hand.....	J. P. Menard and E. T. Weyman.....	414,425	Nov. 5	379	92	49	814
Truck. Motor.....	E. Peckham.....	417,937	Dec. 24	2686	708	49	1919
Truck transferring device.....	L. D. Howard.....	413,663	Oct. 15	1879	490	49	340
Truck. Turn-table extension-ladder.....	E. B. Preston.....	414,578	Nov. 5	606	{ 157 158 } 159	49	860
Trunk.....	E. H. E. and P. M. E. Bertin.....	413,431	Oct. 22	2440	{ 632 633 } 634	49	485
Trunk and wardrobe. Convertible.....	J. M. Wolbrecht.....	412,770	Oct. 15	1660	417	49	325
Trunk-catch.....	F. J. Lytle.....	412,770	Oct. 15	1467	393	49	301
Trunk-corner.....	G. M. Ballard and S. Mason.....	412,429	Oct. 22	2441	634	49	485
Trunk or travese-case.....	G. Crouch.....	412,473	Oct. 8	1011	263	49	200
Trunk-strap and catch. Combination.....	F. J. Palcia.....	417,440	Dec. 17	1913	511	49	1763
Trunk-strap fastening.....	J. A. O'Brien.....	414,029	Oct. 29	3430	292	49	705
Truss.....	W. W. Bays.....	413,483	Oct. 22	2518	{ 652 653 } 654	49	510
Truss.....	M. R. Barker.....	414,182	Nov. 5	5	2	49	740
Truss.....	C. E. Bickelow.....	414,221	Nov. 5	150	37	49	767
Truss.....	J. S. Blackburn.....	415,087	Nov. 12	1309	859	49	1017
Truss.....	V. Fischer.....	414,880	Nov. 12	1077	266	49	958
Truss.....	M. Hutchins.....	416,001	Nov. 26	2609	737	49	1312
Truss.....	J. Perkins.....	414,550	Nov. 5	562	144	49	853
Truss.....	J. Perkins.....	416,730	Dec. 10	879	333	49	1551
Truss.....	J. O. Stephens.....	415,073	Nov. 12	1352	333	49	1013
Truss.....	C. F. Storr.....	418,660	Dec. 31	3798	990	49	2148
Truss.....	G. M. Streeter and A. D. Schlesinger.....	413,152	Oct. 15	2023	527	49	408
Tub.....	G. Wilkinson.....	416,770	Dec. 10	922	849	49	1559
See Bath-tub.	Wash-tub.						
Tub. Combined supply, waste, and overflow for bath.....	A. Aariander.....	418,643	Dec. 31	3774	985	49	2143
Tube:							
See Pneumatic dispatch-tube.							
Tube and making the same.....	W. E. Hill.....	414,643	Nov. 5	711	184	49	881
Tube-cleaner.....	W. H. Wheeler.....	415,308	Nov. 19	1730	450	49	1087
Tube-cutter.....	P. H. Benade.....	412,944	Oct. 15	1709	446	49	346

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly Volume.		Official Gazette.
				Spec.	Dr. at	
Tube cutter, expander, and beader	J. McNeill	412,652	Oct. 8	1385	335	259
Tube-expander	W. D. John	417,323	Dec. 17	1740	468	1730
Tube or pipe machine	J. M. Riley	416,858	Dec. 10	1052	284	1585
Tube-skelps. Machine for scarfing and bending	J. Hooven	416,731	Dec. 10	867	234	1548
Tube-welding furnace	H. Jeffrey	412,187	Oct. 1	590	153	118
Tubes. Manufacture of	J. Robertson	416,077	Nov. 26	2932	765	1336
Tubes. Method of and means for making	J. Robertson	416,014	Nov. 26	2929	741	1316
Tug. Hame	J. A. Knickerbocker	414,286	Nov. 5	152	40	769
Tug. Hame	L. R. Webster	413,694	Oct. 29	2835	739	531
Tug. Harness	W. S. Cassidy	415,351	Nov. 19	1542	420	1107
Tug-holder	A. D. Kimball	414,548	Nov. 5	560	144	852
Tug. Thill	J. Fischer	413,713	Oct. 29	2850	746	586
Tug. Thill	W. P. Lee	416,296	Dec. 10	217	56	1411
Tumbler washer and drier	I. Levitas	417,357	Dec. 17	1532	443	1711
Tumbling-boxes. Machine for	E. H. Taylor	418,144	Dec. 24	3009	788	1979
Tunneling-machine	R. Stanley	414,293	Nov. 12	1093	280	961
Tunnels. Constructing	L. Beecher	413,383	Oct. 22	2333	617	481
Tunnels. Driving	W. L. Saunders	413,869	Oct. 29	3079	802	630
Tunnels or shafts. Building	C. Soerens and E. L. Abbott	417,228	Dec. 17	1690	456	1721
Turbine wheels. Bearing for	G. I. Richardson	413,208	Oct. 22	2113	550	421
Turn-table. Cable-grip	C. Scholz	417,212	Dec. 10	1574	426	1689
Turn-table. Portable	T. Slevin	413,739	Oct. 29	2896	734	593
Turning roses or the like. Machine for	R. C. Brown	418,161	Dec. 31	3042	798	1985
Turnstile. Registering	J. Brady	417,141	Dec. 10	1470	400	1609
Turrets. Sighting-platform for revolving	T. R. Timby	413,382	Oct. 22	2058	690	537
Typesetting-machine	N. Foust	417,164	Dec. 10	1506	410	1676
Typesetting-machine	V. F. Foster	417,163	Dec. 10	1505	410	1676
Twine	B. P. Clark	416,052	Nov. 26	2891	755	1297
Twine-cutter	D. McDonough	415,216	Nov. 19	1591	409	1059
Twine for binding grain	G. A. Lowry	412,963	Oct. 15	1736	454	351
Twine-holder	J. C. Patterson	415,215	Nov. 19	1595	411	1060
Twine or cord. Machine for finishing and completing	J. Cleynne	412,070	Oct. 1	419	109	85
Twisting machines, &c. Electric stop-motion for	V. I. Cummock	414,025	Oct. 29	3322	867	683
Type-bars. Machine for making	A. J. Engelen	413,942	Oct. 15	1802	485	374
Type-distributing machine	R. W. Nelson	417,074	Dec. 10	1365	374	1649
Type-making machine	J. G. Pavver	413,087	Oct. 15	1914	500	387
Type-setting machine	L. Dow	412,606	Oct. 8	1212	315	244
Type-setting machine	L. Dow	412,714	Oct. 8	1322	360	218
Type-setting machine	T. J. Lums	417,057	Dec. 10	1346	361	1645
Type-setting machine	J. B. Odell	418,321	Dec. 31	3222	857	2043
Type-setting machine. Electro-magnetic	W. Dreyer	415,864	Dec. 31	3085	992	2149
Type-writer cabinet	J. Kiefer	415,522	Dec. 31	3201	937	2107
Type-writer copy-holder	J. W. Allen	413,221	Oct. 1	638	166	125
Type-writer copy-cabinet	J. P. Mighell and F. E. Gladwin	414,963	Nov. 12	1225	319	998
Type-writers, &c. Cabinet for	L. G. Billings	414,968	Nov. 12	1207	314	984
Type-writers. Device for shifting the platens of	W. H. Jayne	415,319	Dec. 31	3276	856	2043
Type-writing machine	J. J. Boyer	414,137	Nov. 5	12	3	711
Type-writing machine	C. C. Clark	414,494	Nov. 5	481	123	838
Type-writing machine	L. S. Crandall	414,296	Nov. 5	170	43	771
Type-writing machine	D. W. Dodson	416,257	Dec. 3	153	42	1308
Type-writing machine	G. D. Hedden	415,024	Dec. 24	2213	743	1944
Type-writing machine	G. H. Lasar	415,523	Nov. 19	2075	539	1155
Type-writing machine	G. H. Lasar	415,524	Nov. 19	2078	539	1155
Type-writing machine	G. H. Lasar	415,525	Nov. 19	2080	540	1156
Type-writing machine	G. H. Lasar	415,526	Nov. 19	2081	540	1156
Type-writing machine	G. H. Lasar	415,527	Nov. 19	2082	541	1156
Type-writing machine	G. H. Lasar	415,528	Nov. 19	2084	541	1157
Type-writing machine	G. H. Lasar	415,529	Nov. 19	2085	541	1157
Type-writing machine	G. H. Lasar	415,530	Nov. 19	2086	542	1157
Type-writing machine	G. H. Lasar	415,531	Nov. 19	2090	543	1158
Type-writing machine	G. H. Lasar	415,532	Nov. 19	2091	543	1158
Type-writing machine	G. H. Lasar	415,533	Nov. 19	2092	543	1159
Type-writing machine	G. H. Lasar	415,534	Nov. 19	2094	544	1159
Type-writing machine	G. H. Lasar	415,535	Nov. 19	2096	544	1159
Type-writing machine	G. H. Lasar	415,536	Nov. 19	2097	544	1160
Type-writing machine	G. H. Lasar	415,537	Nov. 19	2102	546	1161
Type-writing machine	G. H. Lasar	415,538	Nov. 19	2104	547	1161
Type-writing machine	G. H. Lasar	415,539	Nov. 19	2105	547	1161
Type-writing machine	A. B. Reid	415,063	Nov. 12	1336	349	1010
Type-writing machine	J. E. Robinson	414,588	Nov. 5	427	104	855
Type-writing machine	C. L. Sholes	418,529	Dec. 31	3152	825	2017
Type-writing machine	F. X. Wagner	414,095	Oct. 29	3423	899	704
Type-writing machine	C. D. Wallace	418,094	Dec. 24	2219	766	1964
Type-writing machine attachment	J. Mcweeney	412,114	Oct. 1	473	123	95
Type-writing machine scale	J. P. Reiller	412,221	Oct. 8	1084	293	820
Type-writing machines. Key-lever for	J. Brady	417,620	Dec. 17	2214	569	1820

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Type-writing machines. Knee reverse-movement attachment for	G. Gledhill	412,349	Oct. 8	682	181	49	142
Type-writing machines. Line-feed mechanism for	T. Bigelow	414,749	Nov. 12	873	226	49	920
Type-writing machines. Reverse-movement attachment for	A. H. Woodall and W. S. Romme	412,360	Dec. 31	3179	833	49	2023
Type-writing machines. Ribbon-inking attachment for	J. W. Peabody	416,490	Dec. 3	501	136	49	1470
Umbrella	D. Rose	415,563	Nov. 19	9149	562	49	1170
Umbrella	J. Weeks	416,657	Dec. 3	762	308	49	1521
Umbrella drip-cup	W. C. Doddridge	417,316	Dec. 17	1728	464	49	1728
Umbrella-frame	J. Weeks	416,658	Dec. 3	764	299	49	1521
Umbrella-holder	E. A. Schenck	416,735	Dec. 10	902	843	49	1535
Umbrella or parasol	R. E. Peters and W. T. Green	412,894	Oct. 15	1639	428	49	332
Umbrella-runners. Making	F. A. Ellis	413,275	Oct. 22	2207	576	49	450
Umbrellas and parasols. Window for	A. L. Andrews	416,332	Dec. 3	303	79	49	1434
Umbrellas or parasols. Detachable cover for	D. A. Hoy	414,891	Nov. 12	1037	268	49	851
Underwaist	H. D. and C. R. De Bevoise	414,026	Oct. 29	3395	267	49	684
Unloading-platform	A. Troxell	416,519	Dec. 3	551	149	49	1479
Upsetting machine	W. R. Eddlen	417,609	Dec. 17	2271	609	49	1830
Urethral irrigator and dilator	F. J. Lindemann	414,261	Nov. 12	1223	212	49	987
Urn. Hot-water	C. Zimmermann	413,471	Oct. 22	2499	642	49	205
Vaccine-point package	H. T. Stanton	418,080	Dec. 24	2902	761	49	1960
Valve	T. S. Bishop	415,699	Nov. 26	2265	617	49	1230
Valve	V. W. Blanchard	413,923	Oct. 29	3163	236	49	650
Valve	V. W. Blanchard	414,121	Nov. 19	3480	309	49	1716
Valve	S. F. Collins	411,856	Oct. 1	123	31	49	26
Valve	J. H. Daly	417,003	Dec. 10	1256	344	49	1027
Valve	J. E. Faby	415,963	Nov. 26	2205	678	49	1265
Valve	R. J. Pratt and J. Robinson	416,048	Dec. 10	1159	392	49	1631
Valve	A. Weber	413,216	Oct. 22	2124	352	49	433
Valve	C. F. West	411,973	Oct. 1	921	72	49	57
Valve-actuating device	M. L. Harris	415,671	Nov. 19	3219	605	49	1202
Valve. Air-brake relief	V. W. Hanson	416,603	Dec. 3	676	163	49	1504
Valve and alarm-whistle. Safety.	T. Porter	415,493	Nov. 19	1967	515	49	1177
Valve and filter. Combined regulating.	R. Wallwork and A. C. Wells	417,761	Dec. 24	2420	638	49	1968
Valve and ignitor for gas-engines. Automatic	E. Korting	418,029	Dec. 24	2922	745	49	1946
Valve apparatus for vacuum railway-brakes	J. Oreshan	415,968	Nov. 26	2263	732	49	1202
Valve apparatus. Hydraulic	I. H. Vern and R. C. Smith	414,610	Nov. 5	662	173	49	871
Valve. Automatic cock	J. F. Carpenter	412,463	Oct. 8	966	259	49	2029
Valve. Balanced float	H. C. Orledge	418,276	Dec. 31	3897	839	49	2022
Valve. Balanced slide	J. B. Alfrey	412,521	Oct. 1	123	31	49	26
Valve. Balanced slide	H. D. Dunbar	414,027	Oct. 29	3327	868	49	654
Valve. Balanced slide	E. V. Thomas	416,812	Dec. 10	906	366	49	1271
Valve. Balanced slide	W. A. and J. J. Vreeland	411,911	Oct. 1	197	50	49	40
Valve. Cut-off	R. B. Moore	412,111	Oct. 1	471	182	49	103
Valve device. Electric	F. Stevens	411,908	Oct. 1	194	49	49	40
Valve. Drain	J. F. McElroy	412,651	Oct. 8	1294	335	49	229
Valve. Electro-automatic	M. A. and A. S. Kissell	415,471	Nov. 26	2204	681	49	1267
Valve for air-brakes	F. Lansberg	415,321	Nov. 19	3074	348	49	1154
Valve for air-brakes. Automatic pressure-retaining	T. P. Sweeney	416,516	Dec. 3	546	148	49	1478
Valve for air-brakes. Combination	T. H. Haberkorn	417,721	Dec. 24	2335	621	49	1256
Valve for pneumatic pipes or tubes	J. T. Hawkins	413,941	Oct. 29	3194	834	49	1947
Valve for steam-engines. Cut-off back-pressure	W. H. Lawrence	418,034	Dec. 24	2926	746	49	1946
Valve for steam-engines. Relief	G. A. Marsh, Jr.	417,329	Dec. 17	1746	470	49	1232
Valve for water-filters, &c. Check	O. H. Jewell	418,335	Dec. 31	3304	864	49	2048
Valve. Gate	J. Galvin	415,736	Nov. 26	2273	646	49	1240
Valve-gear	V. W. Blanchard	413,910	Oct. 29	3144	821	49	644
Valve-gear	G. A. Franke	418,404	Dec. 31	3403	890	49	2068
Valve. Hydrant	P. White	413,638	Oct. 22	2748	712	49	556
Valve. Hydraulic-motor	H. W. Forslund	417,716	Dec. 24	2345	619	49	1654
Valve. Indicator	H. H. B. Meyer	418,644	Oct. 8	1276	332	49	227
Valve mechanism for air-brakes	T. H. Haberkorn	413,352	Oct. 22	2174	566	49	443
Valve mechanism for hydraulic elevators	W. P. Gibson	418,405	Dec. 31	3404	890	49	2069
Valve mechanism for wash-basins	J. W. Hale	416,221	Dec. 3	100	29	49	1389
Valve mechanism. Hydraulic	F. Probst	412,729	Oct. 1	189	39	49	486
Valve operating and indicating post	J. R. Freeman	413,714	Oct. 29	3259	746	49	1267
Valve-operating device for elevators. Electro	C. W. Baldwin	417,132	Dec. 10	1457	385	49	1606
Valve. Pressure-regulating	J. M. Foster	414,975	Nov. 12	1215	316	49	925
Valve. Radiator	M. Carroll and C. C. Soethem	417,792	Dec. 24	2325	614	49	1850
Valve-regulator. Thermostatic	E. C. Merrill	412,280	Oct. 8	730	190	49	150
Valve. Safety	C. H. Payne	417,275	Dec. 17	1671	452	49	1717
Valve. Sand-box	T. Anshel	417,814	Dec. 17	1577	427	49	1699
Valve. Steam	V. W. Blanchard	413,900	Oct. 29	3129	816	49	641
Valve. Steam-actuated	J. A. Wiggs, Jr.	413,005	Oct. 15	1796	470	49	363
Valve. Steam-engine	W. D. Haven	415,385	Nov. 19	1847	481	49	1108
Valve. Steam-engine	C. Vogel	411,944	Oct. 1	248	64	49	50
Valve. Steam-platen	A. L. Albertson	412,226	Oct. 8	6208	414	49	849
Valve. Stop	I. Fisher	414,509	Nov. 5	503	128	49	80
Valve system for steam-engines	J. Wheelock	413,695	Oct. 29	2836	740	49	521
Valves. Lock for shut-off	G. B. Haines	414,154	Oct. 29	3515	915	49	783
Valves. Mechanism for controlling cut-off	T. W. Blanton	413,686	Oct. 29	2836	740	49	522
Valves of water-closet or other tanks. Operating mechanism for	P. W. Doherty	411,828	Oct. 1	164	42	49	34
Valves of water-closet or other tanks. Operating mechanism for	P. W. Doherty	411,829	Oct. 1	167	43	49	34
Valves on their seats. Machine for grinding	E. U. Seville	412,423	Oct. 8	939	246	49	190
Vapor-burner	F. P. Crosby	416,574	Dec. 3	636	172	49	1496
Vapor-burner	P. Schneider and H. Trenkamp	417,343	Dec. 17	1771	475	49	1735
Vapor-burner	E. H. Wackerman	411,644	Oct. 1	108	28	49	84
Vapor burner and stove	J. A. Marsh	413,522	Oct. 29	3019	786	49	617

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.
				Spec.	Debt	
Vapor-burner attachment.....	W. P. Butler.....	415,619	Nov. 19	9230	581	49 1184
Vaporizer.....	F. C. Hawkes.....	416,913	Dec. 10	1134	40	49 1601
Vaporizer and burner. Hydrocarbon.....	T. J. Ogle.....	419,900	Oct. 1	605	157	49 191
Vaporizer. Retort.....	C. Ball.....	413,885	Oct. 29	1108	810	49 636
Vaporizer. Retort.....	L. J. Phelps.....	413,702	Oct. 29	2926	702	49 600
Vaporizing and burning crude oils. Apparatus for.....	G. W. Crawford and W. A. Ross.....	411,781	Oct. 1	18	7	49 7
Vaporizing and burning petroleum. Apparatus for.....	H. Claff.....	411,781	Oct. 1	17	6	49 7
Vaporizing fuel-oil. Apparatus for.....	S. P. Crafts.....	412,938	Oct. 8	669	177	49 139
Vat: See Cheese-vat.						
Vase-covering.....	G. Osburg.....	411,873	Oct. 1	140	36	49 29
Vault. Burglar-proof.....	C. O. Yale.....	416,700	Dec. 3	930	323	49 1532
Vault. Safety.....	G. S. Clark.....	417,904	Dec. 24	2628	683	49 1908
Vegetable-cutter. Rotary.....	M. E. Richter.....	415,847	Nov. 26	2573	672	49 1260
Vegetable substances. Apparatus for treating.....	A. Chambers.....	417,470	Dec. 17	1954	521	49 1771
Vegetables. Tool for peeling or scraping.....	A. Hirschel.....	414,908	Nov. 12	1114	287	49 966
Vehicle.....	C. M. Blydenburgh.....	414,485	Nov. 5	468	119	49 835
Vehicle.....	C. M. Blydenburgh.....	415,606	Nov. 19	2921	579	49 1182
Vehicle.....	J. P. Bardick.....	417,143	Dec. 10	1476	439	49 1670
Vehicle.....	P. Ellis.....	417,713	Dec. 24	2341	618	49 1853
Vehicle.....	M. Medart.....	418,650	Dec. 31	3784	987	49 2144
Vehicle.....	W. E. Schaffer.....	418,420	Oct. 8	936	245	49 190
Vehicle.....	H. P. Wells and J. Spofford, Jr.....	415,287	Oct. 29	2969	693	49 1349
Vehicle-body.....	C. M. Blydenburgh.....	413,017	Oct. 15	1923	477	49 398
Vehicle-body.....	W. N. Morrell and C. A. Eddy.....	412,779	Oct. 15	1477	385	49 302
Vehicle-body.....	J. M. Hardin.....	414,404	Nov. 12	1108	285	49 964
Vehicle-brake.....	J. Smith.....	415,287	Nov. 5	468	167	49 868
Vehicle-brake.....	T. S. Smith.....	412,132	Oct. 29	2963	433	49 1601
Vehicle-brake.....	G. White.....	415,596	Nov. 19	2929	574	49 1180
Vehicle-brake and starter.....	J. H. Bloom.....	415,440	Nov. 19	1933	503	49 1125
Vehicle-brake. Automatic.....	C. D. Clark.....	418,810	Dec. 31	3107	815	49 2008
Vehicle. Electrically-propelled.....	W. Main.....	417,259	Dec. 17	1642	445	49 1712
Vehicle-fender.....	H. Clawson.....	413,493	Oct. 22	2535	656	49 513
Vehicle-gear.....	D. W. Camp.....	412,726	Oct. 15	1404	367	49 290
Vehicle-gear and spring.....	E. F. Morse.....	415,414	Nov. 19	1891	452	49 1117
Vehicle-gearing.....	S. S. Fax.....	412,740	Oct. 15	1421	371	49 253
Vehicle-head-block.....	F. P. Circle.....	413,224	Oct. 22	2136	555	49 438
Vehicle-motor-gear.....	K. Fecan.....	417,938	Dec. 24	2628	708	49 1919
Vehicle-reach-coupling.....	C. C. Brunoy.....	412,872	Oct. 15	1029	418	49 1265
Vehicle-running-gear.....	H. W. Fruekmann.....	414,693	Nov. 12	735	206	49 905
Vehicle-running-gear.....	C. C. Hayes.....	414,534	Nov. 5	543	139	49 849
Vehicle-running-gear.....	W. H. Lowe.....	413,403	Oct. 22	2410	624	49 487
Vehicle-running-gear.....	H. M. Oliver.....	416,553	Dec. 10	1944	521	49 1583
Vehicle-running-gear.....	D. Reynolds.....	418,224	Dec. 31	3127	830	49 2013
Vehicle-running-gear.....	W. D. Rumsey.....	413,969	Oct. 29	3231	844	49 664
Vehicle-running-gear.....	L. W. Sharpe and B. M. Carver.....	414,692	Nov. 12	1092	280	49 961
Vehicle-running-gear.....	M. Tompkins.....	417,274	Dec. 17	1822	490	49 1745
Vehicle-seat.....	G. W. Kerr.....	415,971	Nov. 26	2769	734	49 1303
Vehicle-seat back.....	C. Bew.....	415,017	Nov. 12	1274	333	49 998
Vehicle-seat loop.....	C. D. Clark.....	416,009	Nov. 26	2919	739	49 1314
Vehicle-spoke.....	E. J. Feldman.....	415,328	Dec. 3	926	56	49 166
Vehicle-spring.....	T. E. Allen.....	417,461	Dec. 17	1942	518	49 1769
Vehicle-spring.....	A. J. Barrett.....	413,126	Oct. 15	1981	516	49 399
Vehicle-spring.....	F. J. Barrett.....	416,053	Nov. 26	2904	756	49 1327
Vehicle-spring.....	F. P. Conrad.....	414,096	Nov. 5	533	132	49 836
Vehicle-spring.....	E. Cook.....	414,876	Nov. 12	1089	274	49 856
Vehicle-spring.....	J. H. Deniger.....	416,669	Dec. 3	780	213	49 1295
Vehicle-spring.....	G. B. Minard.....	415,645	Oct. 8	1277	332	49 257
Vehicle-spring.....	E. F. Morse.....	415,415	Nov. 19	1893	493	49 1118
Vehicle-spring.....	G. E. Raymond.....	412,665	Oct. 8	963	340	49 362
Vehicle-spring.....	S. H. Raymond.....	415,299	Nov. 19	1730	448	49 1085
Vehicle-spring.....	B. M. Soule.....	414,263	Nov. 5	125	30	49 762
Vehicle-spring.....	C. Springer.....	416,277	Dec. 3	100	56	49 1405
Vehicle-spring.....	E. M. Van Valkenburg.....	418,092	Dec. 31	2917	701	49 2070
Vehicle-spring.....	H. M. Whitney.....	416,351	Dec. 3	301	79	49 1428
Vehicle-spring-gear.....	C. C. Hayes.....	413,007	Oct. 15	1874	469	49 378
Vehicle-spring-gear.....	C. M. Randall.....	412,692	Oct. 8	1234	300	49 252
Vehicle-standard.....	S. Graham.....	416,910	Dec. 10	1120	201	49 1601
Vehicle. Three-wheeled.....	J. S. Patmore.....	417,392	Dec. 17	1748	471	49 1732
Vehicle-top-post rest.....	W. L. Hawes.....	412,748	Oct. 15	1432	374	49 295
Vehicle. Two-wheeled.....	W. L. Hawes.....	417,307	Dec. 17	1655	448	49 1714
Vehicle. Two-wheeled.....	F. W. Lutz.....	414,117	Oct. 22	2416	626	49 711
Vehicle. Two-wheeled.....	J. Neal and C. E. Bell.....	414,439	Nov. 5	526	109	49 810
Vehicle. Two-wheeled.....	W. Page.....	412,039	Oct. 1	375	96	49 76
Vehicle. Two-wheeled.....	P. Pieschel.....	415,222	Nov. 19	1599	412	49 1061
Vehicle. Two-wheeled.....	R. D. Scott.....	411,843	Oct. 1	107	28	49 24
Vehicle-wheel.....	H. W. Vinney.....	418,434	Dec. 31	3453	903	49 2070
Vehicle-wheel.....	J. Arnott.....	417,977	Dec. 24	2742	731	49 1930
Vehicle-wheel.....	P. P. De Bogory.....	416,095	Nov. 26	2960	774	49 1342
Vehicle-wheel.....	M. A. Dwyer.....	413,528	Oct. 29	3060	797	49 628
Vehicle-wheel.....	J. B. Lott.....	415,344	Nov. 19	1792	405	49 1086
Vehicle-wheel.....	J. B. Lott.....	415,364	Nov. 19	1820	474	49 1102
Vehicle-wheel.....	W. F. Marsh.....	413,700	Oct. 29	2922	761	49 599
Vehicle-wheel.....	A. A. Morgan and E. H. Higby.....	415,117	Nov. 12	1405	367	49 1025
Vehicle-wheel.....	F. E. Southard.....	414,792	Nov. 12	1116	297	49 628
Vehicle-wheel fender.....	B. H. Borseson.....	416,556	Dec. 3	605	164	49 1490
Vehicle-wheels. Anti-friction bearing for.....	H. W. Libbey.....	413,525	Oct. 22	2581	669	49 522
Vehicle-wheels. Runner attachment for.....	M. A. Linder.....	413,450	Oct. 22	2472	642	49 500
Vehicle. Spring-platform for.....	A. S. Dwyer.....	415,096	Nov. 12	1378	360	49 1019
Velocipede.....	J. S. Copeland.....	412,322	Oct. 8	768	205	49 161
Velocipede.....	J. B. Eddy.....	413,639	Oct. 27	2747	712	49 257
Velocipede.....	A. Featherstone.....	414,505	Nov. 5	497	127	49 841

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Vol.	Page.
				Spec.	Dr. g.		
Velocipede.....	S. Garwood.....	418,611	Dec. 31	3725	973	49	2133
Velocipede.....	O. Hammarstrom.....	417,483	Dec. 17	1966	530	49	1778
Velocipede.....	D. E. Hunter.....	414,948	Oct. 39	3355	874	49	659
Velocipede.....	W. P. Perry.....	415,790	Nov. 26	3403	651	49	1844
Velocipede.....	W. Phillips and R. W. Smith.....	416,493	Dec. 3	505	137	49	1470
Velocipede.....	D. W. Saxton.....	413,104	Oct. 15	1944	508	49	392
Velocipede.....	A. Sharp.....	415,740	Nov. 26	3421	633	49	1230
Velocipede-frames. Making.....	L. M. Cottle.....	414,194	Nov. 5	28	5	49	743
Velocipede-saddle.....	S. E. Gilbert.....	415,291	Nov. 19	1709	453	49	1062
Velocipede-saddle.....	S. Pattison.....	415,253	Nov. 19	1641	494	49	1070
Velocipede-saddle.....	G. T. Warwick.....	416,697	Dec. 3	811	221	49	1531
Velocipede. Water.....	G. Heinse.....	413,719	Oct. 29	2807	748	49	588
Vending apparatus.....	B. Adriance.....	413,009	Oct. 15	1892	472	49	364
Vending apparatus.....	L. Smith.....	416,512	Dec. 3	535	145	49	1476
Vending apparatus.....	J. A. Williams.....	414,788	Nov. 12	921	238	49	929
Vending apparatus.....	J. A. Williams.....	414,787	Nov. 12	922	239	49	929
Vending apparatus. Coin-operated liquid.....	H. Schloesing and B. Dégremont.....	412,126	Oct. 1	489	129	49	98
Vending apparatus. Coin-operated liquid.....	H. Schloesing and B. Dégremont.....	412,127	Oct. 1	492	130	49	99
Vending-machine.....	J. Corbett.....	416,828	Dec. 10	1005	372	49	1576
Vending-machine. Automatic.....	H. T. Crepeau.....	417,354	Dec. 17	1794	492	49	1739
Vending-machine. Automatic.....	H. G. Rogers.....	418,071	Dec. 24	2854	453	49	1958
Vending-machine. Automatic.....	J. C. Stevens.....	412,993	Oct. 15	1774	464	49	359
Vending-machine. Coin-controlled.....	J. Corbett.....	416,827	Dec. 10	1002	372	49	1575
Vending-machine. Coin-operated.....	F. B. Cochran.....	412,469	Oct. 8	908	361	49	203
Veneer or lumber cutting machine. Rotary.....	H. S. Smith.....	412,553	Oct. 8	1192	292	49	228
Venering-machine.....	H. H. King and B. F. K. Jennings.....	415,376	Nov. 19	1678	435	49	1077
Vent.....	J. F. Maeder.....	417,433	Dec. 17	1907	510	49	1762
Ventilating apparatus.....	M. Mestera.....	411,899	Oct. 1	180	46	47	37
Ventilating buildings.....	E. K. Blake.....	418,305	Dec. 31	3260	851	49	2030
Ventilating heater.....	R. Marshall.....	413,350	Oct. 22	2337	606	49	1713
Ventilating mines, cellars, &c. Device for.....	W. H. Headley.....	416,921	Dec. 10	1155	322	49	403
Ventilating subways.....	L. L. Johnson.....	415,110	Nov. 12	1307	365	49	1023
Ventilator.....	See Building-ventilator. Window-ventilator. Car-ventilator.						
Ventilator.....	P. Abrahamson.....	417,851	Dec. 24	2554	672	49	1893
Ventilator.....	J. Blum.....	415,264	Nov. 19	1653	427	49	1072
Ventilator.....	C. Möhlmeier.....	412,973	Oct. 15	1746	456	49	353
Ventilator for ships, &c.....	H. H. Wilks.....	414,621	Nov. 5	682	177	49	875
Vermis exterminator. Poultry.....	E. Rupp.....	416,951	Dec. 10	1155	322	49	1612
Vessel. Metallic.....	D. C. McIntire.....	413,953	Oct. 29	3069	790	49	602
Vessels. Sounding device for the holds of.....	J. Hall.....	411,808	Oct. 1	45	14	49	12
Vest-adjuster.....	D. W. Baker.....	414,364	Nov. 5	271	68	49	792
Vest-adjuster.....	D. W. Bergery.....	416,891	Dec. 10	1105	301	49	1295
Veterinary curl-compress.....	J. S. Cabaniss.....	417,810	Dec. 24	2404	657	49	1795
Veterinary incisor-cutter.....	H. Hansmann.....	414,311	Nov. 5	198	49	49	777
Veterinary remedy.....	E. G. King.....	417,565	Dec. 17	2131	510	49	1803
Veterinary surgical instrument.....	H. B. Hartley.....	415,715	Nov. 26	3288	923	49	1234
Vibration recorder.....	J. Milne.....	415,465	Nov. 19	1891	514	49	1135
Vignetting-frame.....	J. M. Kellum.....	412,511	Oct. 8	1072	280	49	217
Violin.....	E. Gruenberg.....	416,726	Dec. 10	864	233	49	1548
Violin-bow.....	C. L. Landis.....	413,069	Oct. 15	1866	493	49	361
Violin-rest.....	M. Loeser and C. Venth.....	413,907	Oct. 29	2909	778	49	611
Violin tail-piece.....	F. P. Snow.....	414,923	Nov. 12	1134	296	49	970
Violins. Muffling attachment for.....	W. Thompson.....	417,292	Dec. 17	1805	457	49	1722
Vise.....	G. S. Buck.....	417,982	Dec. 24	3747	723	49	1931
Vise.....	E. Dawson.....	412,166	Oct. 1	553	145	49	111
Vise and screw-cutting and drilling device. Combined.....	W. G. Sheppard.....	416,939	Dec. 10	1193	325	49	1614
Vise and screw-cutting and drilling device. Combined.....	J. O. Barrett.....	418,637	Dec. 31	3766	983	49	2141
Voting. Apparatus for use in secret.....	L. Kutscher.....	412,761	Oct. 15	1454	380	49	229
Voting-booth. Portable.....	J. Payne.....	415,395	Nov. 19	1863	485	49	1111
Voting compartment.....	C. H. Peck.....	416,694	Dec. 31	3747	979	49	2137
Voting-machine.....	J. H. Myers.....	415,548	Nov. 19	2129	533	49	1164
Voting-machine.....	J. H. Myers.....	415,549	Nov. 19	2127	533	49	1166
Vulcanized plastic compound.....	W. Kiel.....	412,264	Oct. 8	709	147	49	147
Vulcanized plastic compounds. Manufacturing.....	W. Kiel.....	412,265	Oct. 8	710	147	49	147
Vulcanized plastic compounds. Manufacturing.....	W. Kiel.....	412,266	Oct. 8	711	147	49	147
Vulcanized plastic compounds. Manufacturing.....	W. Kiel.....	412,267	Oct. 8	712	147	49	147
Vulcanized plastic compounds. Manufacturing.....	W. Kiel.....	412,268	Oct. 8	713	147	49	147
Vulcanized plastic compounds. Manufacturing.....	W. Kiel.....	412,269	Oct. 8	713	147	49	147
Wad-puller.....	M. A. Twitchell.....	416,975	Dec. 10	1309	331	49	1618
Wagon.....	A. B. Dale.....	411,788	Oct. 1	22	7	49	8
Wagon-hed raiser.....	J. A. Hugdlett.....	415,907	Oct. 29	2909	778	49	611
Wagon-body.....	P. V. Clark.....	415,928	Nov. 26	3753	719	49	1369
Wagon-body.....	W. N. Morrell and C. A. Eddy.....	412,778	Oct. 15	1476	365	49	302

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Vol.	Page.
				Spec.	Draw.		
Wagon-body fastener	T. G. Mandt.	413,569	Oct. 22	3585	670	49	522
Wagon-body lock	A. C. Phillips.	418,625	Dec. 31	3748	979	49	2138
Wagon-bolster	E. W. Bertram.	417,590	Dec. 24	3693	691	49	1907
Wagon-box	R. A. Hart	412,746	Oct. 24	1450	373	49	295
Wagon-brake	J. S. Brown	412,930	Oct. 15	1827	477	49	369
Wagon-brake	E. H. Higby	413,510	Nov. 10	2061	535	49	1151
Wagon-brake, Automatic	J. W. Wilcox and E. S. Chatfield.	414,605	Nov. 5	751	193	49	888
Wagon. Concrete mixing and delivering	G. F. Gray.	413,411	Nov. 19	1887	492	49	1116
Wagon. Dumping.	W. H. Long.	416,338	Dec. 31	3308	865	49	2048
Wagon. Dumping.	B. Schroder.	413,566	Oct. 22	2635	664	49	533
Wagon. Dumping.	J. P. Van Wyck	414,003	Oct. 29	3420	889	49	603
Wagon-gear	C. S. Beebe	413,888	Oct. 29	3112	811	49	737
Wagon-jack	A. F. Millspangh	414,672	Nov. 12	772	200	49	901
Wagon-jack.	F. M. Terry	411,927	Oct. 1	218	56	49	45
Wagon-lock	A. M. Terry	414,991	Oct. 29	3418	888	49	703
Wagon-reach	P. Andersen	414,178	Nov. 5	1	1	49	739
Wagon-seat fastener	T. G. Mandt.	413,530	Oct. 22	2586	670	49	523
Wagon-seat lock	B. Van Horn and E. E. Lathie.	414,957	Nov. 12	1146	309	49	980
Wagon-seats. Step-ladder attachment for	S. R. Lewis	416,930	Dec. 10	1457	369	49	1037
Wagon. Skeleton	D. P. Head	416,023	Dec. 34	2912	742	49	1944
Wagon-standard	C. Ahresch	415,420	Nov. 19	1929	499	49	1123
Wagon-step	E. H. Higby	413,633	Dec. 24	2827	746	49	1947
Wagon. Tiltting.	C. D. White	415,661	Nov. 19	2282	598	49	1198
Water. Table.	E. O. Lyckett and A. G. Braun	414,223	Oct. 1	640	167	49	128
Wall. Brick	M. G. Tonsley	415,131	Nov. 12	1428	373	49	1029
Wall facing and decoration	L. Crull.	413,838	Oct. 15	1567	414	49	323
Wall-paper trimmer and straight-edge	E. J. Moore	417,492	Dec. 17	1602	399	49	1704
Wall. Partition	A. J. Gibson	417,167	Dec. 10	1508	411	49	1676
Wall-pocket	J. M. Sinclair.	416,428	Dec. 3	410	110	49	1451
Walls. Construction of retaining.	G. Baldwin	415,436	Nov. 19	1926	501	49	1124
Warmer. Body.	W. H. Harrelson	413,718	Oct. 29	2963	747	49	588
Warp-planting machine	T. C. Green	412,744	Oct. 15	1427	373	49	294
Warping-frames. Automatic lead-indicator for.	W. A. Patrick and A. Hasty	412,422	Oct. 8	1029	268	49	208
Warping-rod	J. H. Stone	413,243	Nov. 5	701	94	49	758
Wash-board	G. P. Fuller	417,544	Dec. 27	3543	669	49	1891
Wash-board	E. C. P. Planchmidt.	414,895	Nov. 12	951	246	49	935
Wash-board	D. G. Stone	417,880	Dec. 24	2592	682	49	1901
Wash-bowl	J. T. McCaffrey	415,418	Oct. 22	2489	631	49	492
Wash-bout closet. Porcelain	D. G. Stone	413,650	Oct. 8	1284	325	49	529
Wash-stand. Cabinet	J. Reid	416,856	Dec. 10	1621	393	49	1585
Wash-stand. Hanging	F. H. Hungus	416,919	Dec. 10	1145	313	49	1604
Wash-tub	J. C. Milligan	413,300	Oct. 22	2098	546	49	428
Wash-tub	W. H. Anderson	417,351	Dec. 17	1767	481	49	1738
Wash-tub support	F. F. Field	416,452	Dec. 3	446	129	49	1459
Washer	O. Greeley	413,181	Oct. 22	2073	540	49	434
See Dish-washer.	Plate and dish washer.						
Gas-washer.	Tumbler-washer.						
Washer and wringer. Combined	C. A. White	414,620	Nov. 5	680	177	49	875
Washers. Manufacture of metal	F. S. Sponchi.	417,932	Dec. 24	2794	712	49	1922
Washing-machine	C. S. Beaulieu	412,387	Oct. 8	1150	310	49	339
Washing-machine	G. M. Beck	412,719	Oct. 15	1395	365	49	328
Washing-machine	C. N. Cadwallader	414,916	Oct. 29	3314	864	49	681
Washing-machine	L. N. Campbell and J. Pyle.	416,395	Dec. 3	366	97	49	1441
Washing-machine.	J. Carlisle	418,331	Dec. 31	3301	802	49	2047
Washing-machine.	E. Churebill	413,921	Oct. 29	3009	753	49	615
Washing-machine.	W. R. Clark	416,269	Dec. 3	636	170	49	1494
Washing-machine.	S. Hake	413,545	Nov. 26	2597	679	49	1365
Washing-machine.	J. W. Hart and H. Barbois	415,247	Nov. 19	1639	421	49	1067
Washing-machine.	J. Hauke	413,608	Oct. 22	2559	623	49	922
Washing-machine.	J. S. Headen and J. T. Boswell	418,469	Dec. 31	3412	892	49	2070
Washing-machine.	J. Lachance	414,710	Nov. 12	819	212	49	909
Washing-machine.	W. I. McCausland	413,400	Oct. 29	3325	665	49	497
Washing-machine.	L. H. Merriman	417,932	Dec. 24	2834	748	49	1948
Washing-machine.	J. W. Mullins	418,040	Dec. 24	2834	748	49	1948
Washing-machine.	A. A. Neff	412,463	Oct. 8	910	228	49	184
Washing-machine.	N. D. Oliphant	417,679	Dec. 17	2228	606	49	1834
Washing-machine.	D. H. Sherwood	412,325	Oct. 8	1005	282	49	318
Washing-machine.	N. D. Oliphant	415,301	Nov. 19	1723	449	49	1055
Washing-machine.	H. E. Smith	415,129	Nov. 12	1426	373	49	1028
Washing-machine.	E. P. Snyder	414,087	Oct. 29	3412	887	49	702
Washing-machine.	H. E. Smith	414,962	Nov. 5	134	29	49	762
Washing-machine.	C. A. Sorenson	417,289	Dec. 17	1691	456	49	762
Washing-machine.	T. Taylor and C. H. Lambkin	417,053	Dec. 24	2711	712	49	1923
Washing-machine.	W. T. Venable	415,465	Dec. 21	3706	968	49	2129
Washing-machine.	A. D. Wagner	414,928	Nov. 12	1132	298	49	972
Washing-machine.	D. B. Wagner	413,817	Oct. 29	3005	782	49	1072
Washing-machine.	W. Whitcomb.	415,228	Nov. 26	2547	666	49	1253
Washing-machine.	C. N. White	418,431	Dec. 31	3450	902	49	2078
Washing-machine.	A. C. F. Williams	414,100	Oct. 29	3431	892	49	706
Washing-machine.	G. W. Winters	414,623	Nov. 5	683	178	49	875
Washing-machine.	A. E. Young	415,762	Nov. 26	2459	642	49	1237
Watch.	E. Zimmerman	414,176	Oct. 29	3547	927	49	730
Watch.	J. W. Cloud	414,199	Nov. 5	16	4	49	742
Watch.	C. E. Hart	414,198	Dec. 24	2984	721	49	1975
Watch.	H. Taccard	412,324	Dec. 31	3204	863	49	2048
Watch-bow	H. T. Buckner	415,336	Nov. 26	2751	718	49	1299
Watch-bow fastener	H. East and F. L. Turner	412,814	Oct. 5	1283	407	49	319
Watch-bow fastener	E. C. Fitch	417,999	Dec. 24	2789	723	49	1977

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Watch-bow fastener	F. L. Turner	414,828	Nov. 12	986	255	49	943
Watch-bow fastening	J. M. Calhoun	415,996	Nov. 30	2,901	734	49	1310
Watch. Calendar	B. Rosenburg	412,796	Oct. 15	1499	390	49	307
Watch-case	F. Mink	415,678	Nov. 19	2,929	608	49	1204
Watch-case	C. F. Merrill	419,447	Dec. 24	2843	736	49	1950
Watch-case bow	E. C. Chappatte	414,793	Nov. 12	931	241	49	931
Watch-case die	W. H. Fitz Gerald	416,815	Dec. 10	1021	275	49	1578
Watch-case, lockers, or similar article	A. Peabody	418,218	Dec. 31	3119	817	49	2011
Watch-case pendant	C. L. Hooper	413,398	Oct. 22	2405	693	49	447
Watch-case piers	M. N. Coe	415,960	Nov. 26	2756	730	49	1300
Watch-case spring	J. D. Ewing	414,802	Nov. 12	946	245	49	934
Watch-case spring	J. H. Fleming	411,800	Oct. 1	45	11	49	10
Watch-case spring	H. K. Gaul	415,669	Nov. 19	2510	603	49	1301
Watch-cases. Device for manufacturing	F. Ecanbert	416,839	Dec. 10	1015	274	49	1577
Watch-crystal gage	O. C. Krachmer	412,631	Oct. 8	1957	398	49	953
Watch-dials. Applying characters and lines to	F. Schmalz	416,015	Nov. 26	2932	49	1316	
Watch-dials. Machine for enameling	E. H. Ryan	415,737	Nov. 26	2815	632	49	1230
Watch-key	R. H. Franklin	414,594	Nov. 12	936	246	49	933
Watch-lids, &c. Mechanism for the manufacture of	F. Ecanbert	412,631	Dec. 10	1013	274	49	1577
Watch-movement box	W. B. Learned	412,020	Oct. 1	366	94	49	74
Watch-movement plate	G. E. Hart	418,129	Dec. 24	2986	753	49	1975
Watch. Pendant set	A. E. Koepfer	414,624	Oct. 29	3371	876	49	663
Watch-pinions. Machine for polishing	C. V. Woerd	417,377	Dec. 17	1925	490	49	1746
Watch-protector	T. Benfield, S. Aufhauser, and A. Milner	412,644	Oct. 29	2761	717	49	568
Watch-regulator	F. W. Schimmel	414,449	Nov. 5	417	106	49	834
Watch. Stem-winding	J. J. Croughlin	418,401	Dec. 31	3401	888	49	2068
Watch. Stem-winding	G. E. Hart	418,130	Dec. 24	2987	783	49	1975
Watch. Stem winding and setting	E. H. Flint	413,654	Oct. 29	2772	720	49	570
Watch. Stem winding and setting	H. Gerber and H. Audemars	415,632	Nov. 19	2264	590	49	1191
Watch. Stem winding and setting	I. Goddard	414,697	Nov. 12	801	208	49	906
Watch. Stem winding and setting	A. H. Potter	416,381	Dec. 31	3372	879	49	3061
Watch. Stop	H. A. Lugin	416,577	Dec. 31	3676	961	49	2123
Watches. Cannon-pinion for	G. E. Hunter	417,644	Dec. 17	2238	594	49	1634
Watches. Decorating	L. F. Evers	415,197	Oct. 12	1385	384	49	1091
Watches. Device for demagnetizing	F. J. Whitton	417,763	Dec. 24	2423	639	49	1869
Watches. Shifting mechanism for stem winding and setting	F. Bourquin	412,457	Oct. 8	979	257	49	199
Water-aerator	L. S. Chichester	417,664	Dec. 17	2264	600	49	1829
Water, &c. Apparatus for purifying, aerating, and filtering	C. Tellier	417,372	Dec. 17	1930	499	49	1745
Water-closet	D. L. Dwinell	415,961	Nov. 26	2757	720	49	1300
Water-closet	W. S. Mayo	418,580	Dec. 31	3661	962	49	2134
Water-closet	F. A. Wells	419,814	Oct. 15	1530	397	49	911
Water-closet bowl	H. C. Weeden	416,130	Nov. 26	3040	792	49	1358
Water-closet flushing apparatus	J. Kelly	415,999	Nov. 26	2901	690	49	1366
Water-closet flushing-valve	McKay	414,158	Oct. 29	3330	916	49	734
Water-closet or other tanks. Operating mechanism for valves of	P. W. Doherty	417,356	Dec. 17	1797	484	49	1740
Water-closet or other valves. Device for operating	A. Stockwell	414,340	Nov. 5	237	59	49	786
Water-closet seat. Portable	H. H. Tittmann	417,606	Dec. 17	2143	581	49	1814
Water-closet service-ho	J. Crawford	414,942	Nov. 12	1162	303	49	975
Water-closet. Siphon	W. Scott	415,128	Nov. 12	1434	373	49	1028
Water-closet valve	J. Eckerley	415,033	Nov. 12	1296	338	49	1092
Water-closets or other receptacles. Supply-tank for	D. Wellington	415,586	Oct. 22	2666	692	49	839
Water-cooler	J. P. Clark	416,356	Dec. 3	307	80	49	1429
Water-cooler and filter	F. G. Winnch	415,028	Nov. 19	2204	575	49	1180
Water-cooler and filter. Combined	W. Morrow and W. Symington	415,366	Nov. 19	1933	474	49	1103
Water-gage	W. Pratt	417,221	Oct. 1	324	66	49	86
Water-heater	R. Bigley	417,222	Dec. 17	1930	431	49	1702
Water-heater	V. W. Blanchard	413,914	Oct. 29	3149	823	49	945
Water-heater	G. W. Butterfield	414,359	Nov. 12	1157	302	49	676
Water-heater	W. H. Campbell	411,251	Oct. 1	324	66	49	86
Water-heater	J. C. Eaton	413,039	Oct. 15	1848	484	49	734
Water-heater	J. F. McElroy	414,157	Oct. 29	3519	915	49	734
Water-heater	A. Spence	418,538	Dec. 31	3619	945	49	2113
Water-heater	J. G. Smith	413,354	Oct. 1	324	66	49	86
Water-heater	W. C. Meadows	411,637	Oct. 29	2729	707	49	512
Water-motor	A. A. Besemer	418,304	Dec. 31	3529	850	49	2038
Water-motor	A. F. Chace	416,667	Dec. 3	777	213	49	1284
Water-motor	J. L. Ealy	414,196	Nov. 5	30	6	49	744
Water or gas plunger	M. J. Kallahan and Key	415,442	Nov. 5	538	118	49	822
Water-purifier	L. E. Overpeck	418,470	Dec. 31	3503	917	49	2038
Water-purifier. Rain	W. R. Scott	419,892	Oct. 15	1591	415	49	324
Water-renovator	L. S. Chichester	417,703	Dec. 24	2238	614	49	1850
Water-sprinkler. Hand	G. W. Traham	417,690	Dec. 17	2203	609	49	1836
Water-supply. Method of and system for obtaining	J. Light	415,543	Nov. 19	2112	549	49	1162
Water-tube boiler	R. Watkins and J. Dickson	412,438	Oct. 8	954	251	49	194
Water-wheel	C. J. Green	417,893	Dec. 24	2372	678	49	1897
Water-wheel	W. H. Ridgway	415,261	Nov. 19	2147	561	49	1170
Water-wheel	E. Stern	413,576	Oct. 29	3244	847	49	666
Water-wheel. Current	E. H. Gray	417,021	Dec. 17	1865	484	49	1693
Water-wheel. Turbine	W. F. Meadows	415,442	Nov. 26	2205	669	49	1258
Waterproofing textile fabrics. Apparatus for	T. F. Wiley	416,388	Dec. 3	336	94	49	1429
Wave-power	A. W. Dewe	415,812	Nov. 26	2521	638	49	1251
Weaver. Calif.	J. F. Miller	417,494	Dec. 17	2007	536	49	1780

Alphabetical list of inventions, October to December, inclusive—Continued.

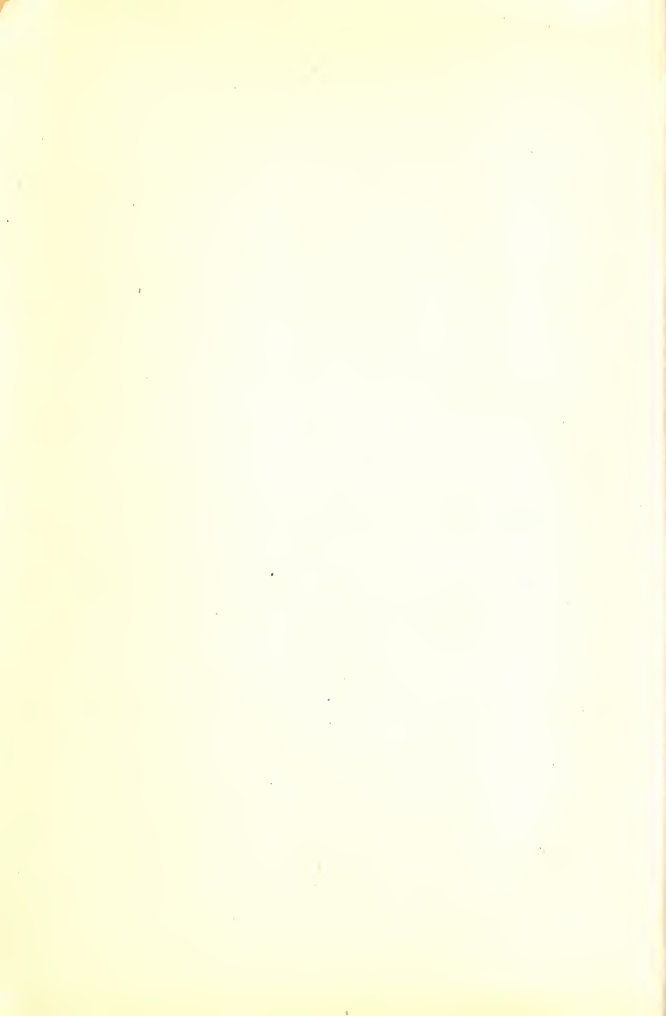
Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Wear-iron. Vehicle	J. M. R. G-dney. (Reissue).....	11,046	Dec. 17	2317	612	49	1839
Weather-boarding. Earthen-tile	A. T. Blatchford.....	415,605	Nov. 19	2221	579	49	1182
Weather-strip	E. Bigonesa.....	411,774	Oct. 1	6	2	49	1
Weather-strip	L. H. Coleman.....	416,357	Dec. 3	308	81	49	1429
Weather-strip	W. H. Fye.....	412,493	Oct. 8	1050	272	49	212
Weather-strip	D. Hartley.....	417,178	Dec. 10	1525	415	49	1679
Weather-strip	M. Howard.....	417,184	Dec. 10	1531	417	49	1681
Weather-strip	A. L. Kirkpatrick.....	416,411	Dec. 3	327	102	49	1446
Weather-strip. Window	J. E. Jones.....	411,992	Oct. 1	309	80	49	63
Weaving plain one-ply fabrics	D. Stone.....	412,210	Oct. 1	618	160	49	124
Weaving plain one-ply fabrics	A. D. Emery.....	415,139	Nov. 12	1440	376	49	1031
Weaving seamless bags	A. D. Emery.....	415,144	Nov. 12	1456	378	49	1033
Weaving seamless bags	A. D. Emery.....	415,149	Nov. 12	1485	383	49	1035
Weaving seamless bags	A. D. Emery.....	415,155	Nov. 12	1484	385	49	1036
Weaving seamless bags	A. D. Emery.....	415,156	Nov. 12	1498	386	49	1036
Weaving seamless bags	A. D. Emery.....	415,157	Nov. 12	1502	387	49	1036
Weaving seamless hip-pockets	A. D. Emery.....	415,158	Nov. 12	1505	388	49	1036
Weaving seamless side pockets	A. D. Emery.....	415,159	Nov. 12	1509	389	49	1037
Weaving two-ply fabrics	A. D. Emery.....	415,145	Nov. 12	1464	379	49	1033
Weaving two-ply figured fabrics	A. D. Emery.....	415,146	Nov. 12	1470	381	49	1034
Weed-cutting	E. Schmitt.....	412,983	Oct. 15	1759	460	49	358
Weed-turner	J. A. Shimp.....	414,334	Nov. 5	250	58	49	785
Weeder	W. A. Brown.....	415,374	Oct. 22	2208	576	49	150
Welgher. Grain	L. A. Gillett.....	412,382	Oct. 8	882	230	49	179
Weighting apparatus	W. Snelgrove.....	412,331	Oct. 22	2304	598	49	468
Weighting apparatus. Automatic	M. E. Reiser.....	414,080	Oct. 29	3404	884	49	700
Weighting attachment for wagons	Z. T. Gragg.....	418,317	Dec. 31	3273	855	49	9042
Weighting-machine. Coin-controlled ticket-printing	E. G. Hoffmann.....	415,294	Nov. 19	1713	445	49	1083
Welding clamp. Electric	E. Thomson and J. Tregoning.....	415,205	Nov. 19	1729	450	49	1087
Welding. Electric	C. L. Coffin.....	412,569	Oct. 8	1201	315	49	242
Welding-machine	T. F. Rowland.....	412,182	Oct. 1	429	138	49	97
Welding-machine	H. E. Fowler.....	417,013	Dec. 10	1272	347	49	1630
Welding tube. Composition for	J. Hindemeyer.....	417,485	Dec. 17	1991		49	1778
Welding tool. Apparatus for	P. Patterson.....	416,374	Dec. 3	333	87, 88	49	1435
Well-boring machine	G. S. Bartholomew.....	417,352	Dec. 17	1789	481	49	1739
Well casing. Artesian	A. J. Clark.....	411,886	Oct. 1	161	42	49	33
Well-drilling machine	J. W. Pascock.....	413,407	Oct. 22	2417	627	49	429
Well-drilling machine	F. R. Pascock.....	416,375	Dec. 3	336	88, 89	49	1435
Well-drilling rig	G. Corbett.....	412,602	Oct. 8	1307	317	49	343
Well or cistern cleaning machine	A. M. Taylor.....	412,211	Oct. 1	610	161	49	124
Well or cistern platform	T. Ruddy.....	414,584	Nov. 5	623	163	49	804
Wells. Combined valve and spraying apparatus for cleaning oil	L. H. Webb.....	414,464	Nov. 5	437	111	49	828
Wells. Extractor for tubes	J. H. Hill.....	412,707	Oct. 8	1309	357	49	275
Wells. Oil-saving apparatus for petroleum	J. W. Felt.....	418,509	Dec. 31	3568	932	49	2103
Wells. Strainer for	J. H. and E. Boone, Jr.....	415,697	Nov. 19	2223	579	49	1183
Wheat-hulling machine	G. Geist.....	418,175	Dec. 31	3064	903	49	1909
Wheat-scourer	J. B. M. Kehlor.....	415,375	Nov. 19	1676	434	49	1076
Wheel:							
See Buffer-wheel.	Metal wheel.						
Car-wheel.	Metallic wheel.						
Crank-wheel.	Paddle-wheel.						
Driving wheel.	Propeller-wheel.						
Expandable wheel.	Vehicle-wheel.						
Fifth-wheel.	Water-wheel.						
Gear-wheel.	Wind-wheel.						
Wheel	G. B. Dean.....	411,887	Oct. 1	163	42	49	34
Wheel	J. Dmstedter.....	417,995	Dec. 24	2776	732	49	1936
Wheel	W. J. Holland.....	412,816	Oct. 15	1568	409	49	319
Wheel	M. B. Mahurin.....	414,650	Nov. 5	734	147	49	825
Wheel	T. P. Oliver.....	415,787	Nov. 28	2491	650	49	1344
Wheel	A. B. White.....	416,190	Dec. 3	29	18	49	1300
Wheel and axle	J. Stephenson.....	412,520	Oct. 22	2125	552	49	433
Wheel-brake	W. J. Kaufman.....	418,520	Dec. 31	3589	937	49	2107
Wheel-rim-holding machine	G. T. Hutchinson.....	414,771	Nov. 12	901	233	49	825
Wheel-wrench	J. L. Zesiger.....	417,897	Dec. 24	2690	650	49	1907
Wheels and cooling tires. Machine for disking	J. W. Maloy.....	413,677	Oct. 29	2810	732	49	577
Wheelbarrow	H. H. Brandes.....	417,224	Dec. 17	1593	432	49	1702
Whiffletree	C. E. Ficker.....	415,193	Nov. 19	1550	409	49	1033
Whiffletree	C. H. and F. Kelly.....	414,812	Nov. 12	960	249	49	937
Whiffletree	W. A. Miller.....	417,573	Dec. 17	2138	570	49	1304
Whiffletree hook	J. H. Rabe.....	417,565	Dec. 17	2155	573	49	1308
Whip-center	T. N. Bishop.....	417,933	Dec. 10	1563	424	49	1687
Whip-socket	G. P. Rose.....	415,381	Oct. 3	323	65	49	1419
Whip-socket	G. H. Spaulding.....	413,633	Oct. 22	2738	709	49	354

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Whisky-tester	K. Taylor	413,154	Oct. 15	2925	528	49	468
Whistle	W. I. Brigham	414,188	Nov. 5	14	3	49	741
Whistle. Air	S. Smith	414,336	Nov. 5	232	58	49	785
Wick. Lamp	Z. Davis. (Release)	415,716	Oct. 15	1417	.....	49	292
Wick-raiser	W. Donaldson	415,408	Nov. 19	1884	491	49	1022
Wick-trimmer	S. M. Housck	417,031	Dec. 10	1391	355	49	1036
Wicks. Treating lamp	T. Dugan	412,607	Oct. 8	1216	.....	49	245
Wig-block	F. Weston	415,373	Nov. 19	1833	478	49	1105
Wig-holder	A. F. Godefroy	413,104	Nov. 12	1392	363	49	1022
Wind-wheel	J. D. Keller	412,099	Oct. 1	456	119	49	92
Wind-wheel attachment	S. A. Lani and J. Liscom	415,675	Nov. 19	2226	607	49	1203
Winding mechanism. Clamp-collar for	J. Barrett	417,133	Dec. 10	1458	396	49	1667
Winding. Swift for silk	W. F. and L. P. Hochspeier	417,494	Dec. 17	1592	506	49	1759
Winding thread on spools. Machine for	C. Hill	413,447	Oct. 22	2468	640	49	499
Winding yarn from chains on to filling-bobbins. Machine for	H. L. Pratt and C. T. Upton	416,405	Dec. 3	508	138	49	1471
Windlass	J. S. Baker	415,036	Nov. 12	1391	339	49	1003
Windlass. Ship	E. H. Whitney	415,080	Nov. 12	1359	355	49	1015
Windmill	W. D. Brundage	414,491	Nov. 5	476	121	49	637
Windmill	F. L. Butler	414,374	Nov. 4	485	.....	49	795
Windmill	C. Claypool	415,811	Nov. 26	2520	658	49	1259
Windmill	O. H. Donley	417,549	Dec. 17	2109	561	49	1798
Windmill	J. E. Duncan	415,904	Nov. 26	2656	697	49	1278
Windmill	J. T. Hostler	414,111	Dec. 17	1676	597	49	710
Windmill	A. G. Norton	416,331	Dec. 31	3607	944	49	1259
Windmill	E. B. Sillard	413,567	Oct. 22	2638	684	49	533
Windmill-governor	W. C. Wye	414,468	Nov. 5	441	112	49	829
Windmill-regulator	T. L. Beggs	417,503	Dec. 17	1620	539	49	1783
Window	H. L. Ferris	417,416	Dec. 17	1676	593	49	1756
Window	J. C. Anderson and W. S. Hull	416,772	Dec. 10	923	249	49	1559
Window	J. Barr	414,965	Nov. 12	1393	313	49	983
Window	J. J. Daniel	415,695	Nov. 12	1377	360	49	1019
Window-casement. Metallic	G. W. Keeler	415,946	Nov. 26	2733	715	49	1285
Window-casting	H. Dugmore	414,944	Nov. 12	1166	304	49	976
Window-jack	A. Swab	412,430	Oct. 8	945	248	49	192
Window or door button	F. W. Quitman	412,755	Oct. 15	1484	387	49	304
Window-screen	S. J. Anderson	415,652	Nov. 19	2228	598	49	1196
Window-screen	J. Chelini	413,010	Oct. 15	1807	473	49	365
Window-screen	W. D. Graves, Jr.	417,403	Dec. 17	1862	499	49	1732
Window-screen	C. K. Hann	415,453	Nov. 19	1993	510	49	1131
Window-screen	D. Hartley	418,126	Dec. 24	2920	750	49	1311
Window-screen	G. A. Jacobs	417,139	Dec. 10	1526	416	49	1680
Window-screen	C. Jemal	413,185	Oct. 22	2075	541	49	424
Window-screen	A. Riggs	412,622	Oct. 1	1547	325	49	251
Window-screen	S. Roebuck	413,966	Oct. 29	3628	844	49	1304
Window-screen	O. Rohlen	416,806	Dec. 10	975	264	49	1569
Window-screen	O. Rohlen	417,945	Dec. 24	3607	710	49	1921
Window-screen	W. H. Thomas	416,083	Nov. 26	3946	767	49	1337
Window-screen	J. Woodhams	415,369	Nov. 26	3791	730	49	1304
Window-sill	D. E. Strayer	416,080	Nov. 26	2943	766	49	1337
Window-ventilator	G. R. Buffham	415,378	Nov. 19	1838	479	49	1106
Wine. Detecting coloring-matter derived from coal-tar in	J. P. Kolzen	416,193	Dec. 31	3606	810	49	2904
Wine. Manufacture of	L. Mathieu and J. Morfaux	416,794	Dec. 10	957	.....	49	1566
Wire. Annealing	W. P. Hamlin	412,385	Oct. 8	886	.....	49	180
Wire bands. Machine for forming eyes on	H. Roberts	414,122	Oct. 29	3462	899	49	712
Wire-bending machine	F. B. Griswold	418,456	Dec. 31	3484	912	49	2084
Wire-bending machine	F. B. Griswold and C. D. Randal	418,512	Dec. 31	3572	933	49	2104
Wire-covering machine	C. A. Cooley	416,254	Dec. 3	147	40	49	1397
Wire-covering machine	W. A. Phillips	413,629	Oct. 22	2731	591	49	1188
Wire-cutter	O. Collins	415,621	Nov. 19	2248	587	49	669
Wire-drawing	W. Wallace	413,988	Oct. 29	3260	852	49	1964
Wire-drawing die	W. Wallace	418,995	Dec. 24	2921	767	49	1337
Wire-drawing machine	B. Begus	413,889	Oct. 29	3113	812	49	637
Wire during the process of annealing. Device for supporting	F. H. Daniels	412,477	Oct. 8	1022	266	49	207
Wire fabric and making the same	C. E. Matteson	415,391	Nov. 19	1858	484	49	1110
Wire fabric. Architectural	I. Kinney	415,673	Nov. 19	2234	607	49	1203
Wire fabric. Flexible	C. H. Cooper	416,246	Dec. 10	1001	271	49	1375
Wire gate and fence	G. Kelly	413,244	Oct. 22	2152	559	49	439
Wire holder and insulator	L. G. Berra	417,971	Dec. 24	2723	715	49	1928
Wire. Machine for corrugating and cutting	J. R. Fletcher	411,601	Oct. 1	36	1	49	10
Wire. Making	W. H. Brown	418,160	Dec. 31	3039	798	49	1994
Wire-netting machine	C. H. Morgan	412,283	Oct. 8	735	191	49	151
Wire or the like in wooden bodies. Securing	W. and W. C. Orr	417,834	Dec. 24	2677	709	49	1918
Wire-ornamenting machine	M. Young	412,691	Oct. 8	1345	350	49	271
Wire-ornamenting machine	S. Moore	413,625	Oct. 22	2737	707	49	551
Wire. Reel for winding	W. M. Patt	415,889	Nov. 26	3913	865	49	1670
Wire-rod-coiling mechanism	D. Grove	414,609	Nov. 12	957	248	49	936
Wire-rod-coiling reel	F. H. Daniels	415,448	Nov. 19	1950	506	49	1128
Wire-rod or cable	C. H. Morgan	416,941	Dec. 10	1170	507	49	1609
Wire-rope tramway	J. B. Stone	416,189	Dec. 3	58	17	49	1380
Wire-splice	G. W. Pickett and A. W. Pickering	414,445	Nov. 5	411	103	49	829
	A. Anderson	414,362	Nov. 5	269	68	49	792

Alphabetical list of inventions, October to December, inclusive—Continued.

Invention.	Name.	No.	Date.	Monthly Volume.		Official Gazette.	
				Spec.	Dr'g	Vol.	Page.
Wire springs. Machine for fastening the ends of coiled.	C. C. Hill	413,666	Oct. 29	2727	724	49	573
Wire. Straightening	J. W. Griswold	418,459	Dec. 31	3490	913	49	2085
Wire-stretcher	T. P. Hickman	413,397	Oct. 22	2403	623	49	486
Wire-stretcher	J. M. Merritt	416,005	Nov. 26	2813	738	49	1313
Wire-stretcher and staple-puller	R. G. Pike, Jr.	413,833	Oct. 29	3026	788	49	619
Wire-tightener	B. Doud	418,172	Dec. 31	3039	802	49	1992
Wire-winding machine	E. Z. Mack	417,263	Dec. 24	2764	729	49	1833
Wire or cables. Machine for covering	E. Beals	413,074	Oct. 15	1893	483	49	383
Wood-hending machine	J. McNahey	417,319	Dec. 17	1522	429	49	1700
Wood-grinding machine	R. Ludwig	417,056	Dec. 10	1314	302	49	38
Wood joints. Metallo fastener for	J. B. Carter and J. W. Pertz	413,024	Oct. 15	1830	478	49	1644
Wood. Machine for spirally winding strips of	J. I. Berry	412,696	Oct. 8	1351	351	49	372
Wood-polishing machine	J. MacFarlane	414,649	Nov. 5	721	186	49	883
Wood. Preserving	O. B. Osborn and E. G. Richards	416,801	Dec. 10	965	262	49	1568
Wood. Preserving	G. Phillips	414,245	Nov. 5	106	167	49	759
Wood-chaping-machine guard	G. Phillips	414,219	Nov. 5	107	167	49	759
Wood strip or panel. Ornamental	C. Rudolph, G. Runderdorf, G. Lemley, and H. Siegfried	415,127	Nov. 12	1423	372	49	1028
Wood surfaces. Finishing	W. Schumacher	412,422	Oct. 8	938	246	49	190
Wood, &c., with copper. Impregnating	J. C. Orth	415,553	Nov. 19	2126	43	49	1167
Wood-working machine	J. Kluenter	414,111	Oct. 29	3448	410	49	710
Wood-working machine	A. J. Goodwin	414,551	Nov. 5	564	145	49	370
Wood-working machine	S. W. Pergrine	416,492	Dec. 3	504	136	49	1470
Wood-working machine	S. J. Shimer	413,685	Oct. 29	2818	734	49	578
Wood-working machines. Feed-works for	E. Benjamin	412,451	Oct. 8	972	255	49	197
Wooden mat	E. Benjamin	416,549	Dec. 3	595	162	49	1486
Wooden structures. Coating for	H. C. Bailey	417,215	Dec. 17	1578	427	49	1699
Wooden structures. Coating for	G. Phillips	414,246	Nov. 5	105	167	49	759
Wool. Apparatus for cleansing	G. Phillips	414,247	Nov. 5	106	167	49	759
Wool, &c. Apparatus for removing hurs and thistle from	I. Singer and M. W. Judell	415,314	Nov. 19	1744	432	49	1069
Wool-washing machine	E. Nouvolet	412,331	Oct. 8	1696	228	49	223
Woolen or other fabrics. Machine for tentering, pressing, and finishing	W. White	413,698	Oct. 29	2841	741	49	582
Woven fabric	G. H. Nnssey and W. B. Leachman	416,641	Dec. 3	734	199	49	1516
Woven fabric	A. D. Emery	415,138	Nov. 12	1439	376	49	1031
Woven fabric	A. D. Emery	415,140	Nov. 12	1440	377	49	1032
Woven fabric	A. D. Emery	415,141	Nov. 12	1450	377	49	1032
Woven fabric	A. D. Emery	415,142	Nov. 12	1452	378	49	1032
Woven fabric	A. D. Emery	415,143	Nov. 12	1454	378	49	1032
Woven fabric	D. B. Kerr	416,235	Dec. 3	166	30	49	1390
Woven fabrics. Machine for tentering, straightening, and finishing	I. E. Palmer	416,343	Dec. 3	292	75	49	1425
Woven figured fabric. Two-ply	A. D. Emery	415,147	Nov. 12	1461	382	49	1034
Woven seamless bag	A. D. Emery	415,148	Nov. 12	1463	382	49	1034
Woven seamless bag	A. D. Emery	415,150	Nov. 12	1468	384	49	1035
Woven seamless bag	A. D. Emery	415,153	Nov. 12	1492	385	49	1035
Woven seamless hip-pocket	A. D. Emery	415,154	Nov. 12	1493	385	49	1035
Woven seamless side pocket	A. D. Emery	415,158	Nov. 12	1491	384	49	1035
Wrench	A. D. Emery	415,151	Nov. 12	1489	384	49	1035
See Flange-wrench. Power-wrench.							
Monkey-wrench. Tension-registering wrench.							
Nut-wrench. wrench.							
Pipe and nut. Wheel-wrench.							
Wrench	A. J. Barber	417,968	Dec. 24	2730	718	49	1927
Wrench	H. W. Burleigh	415,379	Nov. 19	1839	479	49	1106
Wrench	J. E. Lowell	418,337	Dec. 31	3306	864	49	2048
Wrench	J. E. Lowell	417,829	Dec. 24	2622	664	49	1888
Wrench	V. J. McDonnell	415,183	Nov. 12	1544	397	49	1042
Wrench attachment	J. H. Vinton	414,663	Nov. 5	748	193	49	888
Wrench	J. Kenney	418,521	Dec. 31	3590	937	49	2107
See Mop-wringer.							
Wringer	F. W. Brooke	413,489	Oct. 29	2927	655	49	511
Yard-stick and square. Combined.	L. C. Barker	413,543	Oct. 22	2809	674	49	525
Yarn machine. Tie	W. Weisager	416,024	Nov. 26	2846	745	49	1318
Yarns and textile fabrics. Machine for filling, washing, scouring, cleaning, and beetling	C. H. Everson	412,860	Oct. 15	1615	422	49	328
Yeast. Apparatus for making	W. A. L. Hammersley	414,810	Nov. 12	958	248	49	937
Yeast-cake	T. Vogel	417,011	Dec. 17	2192	563	49	1816
Yeast-cake	J. Barnes	413,886	Oct. 29	3111	789	49	436
Yeast-cake	W. A. Hull	413,944	Oct. 29	3197	835	49	657
Yeast. Making compressed.	C. Mildenberger	412,968	Oct. 15	1741	429	49	353
Toke center. Neck	A. P. Koch	416,680	Dec. 3	793	217	49	1527



ALPHABETICAL LIST OF DESIGNS.

Design.	Name.	No.	Date.	Official Gazette.	
				Volume.	Page.
Badge	F. A. Bernhard	19,430	Nov. 10	49	1050
Badge	W. P. Daniels	19,486	Dec. 17	49	1698
Badge	E. M. Requa	19,495	Nov. 12	49	898
Badge	H. Stifus	19,350	Oct. 8	49	134
Belt	L. Sanders	19,360	Oct. 15	49	286
Belt-clasp	W. L. Stair	19,428	Nov. 12	49	898
Bonnet, Child's	E. J. Lynch	19,424	Nov. 12	49	898
Book or album	M. and A. C. Hafely	19,487	Dec. 17	49	1698
Book or album	J. C. Koch	19,525	Dec. 24	49	1848
Book or album	J. A. Petri	19,527	to		
Bottle	W. G. Walter	19,529	Dec. 24	49	1818
Box	W. C. Estes	19,557	Oct. 15	49	286
Box	W. C. Estes	19,517	Nov. 12	49	898
Box	W. C. Estes	19,418	Dec. 3	49	1368
Bracelet	E. P. Beach	19,457	Oct. 29	49	566
Bracelet	E. P. Beach	19,378	Dec. 10	49	1542
Bracelet	E. P. Beach	19,472	Dec. 10	49	1542
Broom-holder	F. H. La Pierre	19,330	Dec. 24	49	1818
Brougham-body	W. Schroeder	19,517	Dec. 17	49	1698
Brush-back	W. R. Connor	19,332	Oct. 15	49	286
Buckle, Belt	F. Mauser	19,324	Oct. 1	49	2
Buckle, Belt	F. Frazer	19,343	Oct. 8	49	134
Buckle, Belt	L. Sanders	19,359	Oct. 15	49	286
Buckle, Clasp	H. C. Noble	19,447	Nov. 26	49	1216
Burial-casket	C. Kugelmaeber	19,448	Dec. 17	49	1698
Burial-casket lid	L. Stein	19,469	Dec. 3	49	1368
Button	C. D. Stone	19,481	Dec. 10	49	1542
Caid or envelope, Business	J. M. Frank	19,354	Oct. 15	49	286
Carpet	W. C. Gleason	19,433	Nov. 19	49	1050
Carpet	W. F. Brown	19,340	Oct. 8	49	134
Carpet	A. L. Halliday	19,341	Oct. 8	49	134
Carpet	W. McCallum	19,344	Oct. 8	49	134
Carpet	J. S. Meyer	19,348	to		
Carpet	J. S. Meyer	19,399	Nov. 5	49	738
Carpet	E. Poole	19,402	Dec. 17	49	1698
Carpet	A. F. Reddie	19,403	Nov. 5	49	738
Carpet	G. Urstadt	19,404	Nov. 5	49	738
Carpet button, Staff	D. Walker	19,405	Nov. 5	49	738
Casino, Exterior of a	W. K. Benedict	19,366	Oct. 22	49	416
Caster	J. Lawson	19,550	Dec. 31	49	1990
Ceiling-plate	J. H. Alexander	19,438	Nov. 19	49	1050
Chapel, Exterior of a	G. C. Gillespie	19,518	Dec. 24	49	1848
Chatelaine-bag	G. C. Gillespie	19,551	Dec. 31	49	1990
Comb	J. H. Allen	19,479	Dec. 10	49	1542
Condiment-holder	J. P. Noyes	19,365	Oct. 22	49	416
Cultivator-frame	J. Locke	19,460	Dec. 3	49	1368
Cultivator-frame	J. Locke	19,462	Dec. 3	49	1368
Curtain or cover	S. L. Allen	19,367	Oct. 22	49	416
Curtain or cover	S. L. Allen	19,449	Dec. 3	49	1368
Curtain or cover	J. Backhausen	19,451	Dec. 3	49	1368
Curtain or cover	J. Daubek	19,334	Oct. 1	49	2
Curtain or cover	H. Hackl	19,330	Oct. 1	49	2
Diab	R. L. Johnson	19,323	Nov. 12	49	898
Electric-light shade	A. Howard	19,423	Oct. 1	49	2
Eraser, Ink	L. L. Thompson	19,329	Nov. 19	49	1050
Ewer	E. J. D. Bodley	19,440	Nov. 19	49	1050
Fence block, Wire	H. B. Schwartzengraber and C. C. Bliss	19,397	Dec. 10	49	1542
Fencing-strand	W. E. and E. F. Hathaway and A. B. Woodard	19,452	Nov. 19	49	1050
Fire-place lining	J. A. Read	19,434	Nov. 19	49	1050
Flower-pot	J. G. Willdin	19,436	Oct. 1	49	2
Flower-pot	J. G. Willdin	19,339	Nov. 5	49	738
Gimp	C. Salatho	19,406	Dec. 3	49	1368
Glass, Ornamentation of	W. L. Pilkington	19,531	Dec. 31	49	1990
Glassware, Ornamentation of	W. C. Anderson	19,552	Dec. 3	49	1368
Glassware, Ornamentation of	J. Locke	19,450	Oct. 8	49	134
Gnatstock	C. A. Davis	19,347	Dec. 24	49	1848
Handle for spoons, &c.	G. W. Stiebler	19,529	Dec. 17	49	1698
Hardware, Ornamentation of builders'	C. W. and F. H. Andrews	19,497	Dec. 31	49	1989

Alphabetical list of designs, October to December, inclusive—Continued.

Design.	Name.	No.	Date.	Official Gazette.	
				Vol.	Page.
Hardware. Ornamentation of builders'.....	G. S. Barkentin.....	19,545	Dec. 31	49	1980
Hat and coat rack.....	C. T. Fowler.....	19,432	Nov. 19	49	1050
Hat-band.....	W. T. Brigham.....	19,445	Nov. 26	49	1216
Heating-boiler.....	G. C. Blackmore.....	19,455	Dec. 3	49	1368
Hinge.....	G. S. Barkentin.....	19,444	Nov. 26	49	1216
Hook-rack.....	J. W. Campbell.....	19,322	Oct. 1	49	2
Hose-wagon body.....	H. P. Colby.....	19,381	Oct. 29	49	566
Hotel exterior.....	W. K. Benedict.....	19,484	Dec. 17	49	1698
House. Exterior of a country.....	A. Lacroix, Jr.....	19,370	Oct. 22	49	416
		19,374			
House. Exterior of a country.....	A. Lacroix, Jr.....	19,490	Dec. 17	49	1698
House. Exterior of a country.....	A. B. Morison.....	19,491	Dec. 17	49	1698
House. Exterior of a dwelling.....	W. K. Benedict.....	19,454	Dec. 3	49	1368
Hud. Wheel.....	W. P. Bettendorf.....	19,431	Nov. 19	49	1050
Jar.....	G. C. Sawyer.....	19,516	Dec. 17	49	1698
Jewel-holder.....	J. L. Remlinger.....	19,375	Oct. 22	49	416
Label.....	A. A. Draper.....	19,442	Oct. 22	49	416
Latch-case.....	G. S. Barkentin.....	19,443	Nov. 26	49	1216
Lamp or gas shade.....	A. Howard.....	19,328	Oct. 1	49	2
Lamp or gas shade.....	J. Webb.....	19,395	Oct. 29	49	566
Metallic finishing plate.....	G. F. Glazocke.....	19,446	Nov. 26	49	1216
Lock case. Door.....	R. W. E. Christensen.....	19,323	Oct. 1	49	2
Lock-trimming.....	H. W. Gebauer and W. H. Johnson.....	19,505	Dec. 17	49	1698
Memorial cross.....	P. W. Bailey.....	19,471	Dec. 10	49	1542
Letters. Font of initial.....	L. L. Sagendorph.....	19,358	Oct. 1	49	2
Mirrors, &c. Back for band.....	G. J. Crowell, Jr.....	19,411	Nov. 12	49	802
Napkin-ring.....	J. Locke.....	19,461	Dec. 3	49	1368
Oar or paddle.....	C. A. Davis.....	19,519	Dec. 24	49	1848
Oil-cloth.....	C. T. and V. E. Meyer.....	19,392	Oct. 29	49	566
		19,390			
Oil-cloth.....	C. T. and V. E. Meyer.....	19,507	Dec. 17	49	1698
		19,514			
Panel. Ornamental.....	A. B. Cameron.....	19,473	Dec. 10	49	1542
		19,478			
Pen-holder.....	F. E. Brosey and C. K. Friedman.....	19,456	Dec. 3	49	1368
Pen nozzle. Fountain.....	N. F. Palmer.....	19,349	Oct. 8	49	134
Punch case. Check.....	S. S. Williamson.....	19,532	Dec. 24	49	1848
Residence. Exterior of a.....	W. K. Benedict.....	19,534	Dec. 31	49	1989
		19,536			
Residence. Exterior of a.....	W. K. Benedict.....	19,540	Dec. 31	49	1990
		19,546			
Rug.....	H. W. Batley.....	19,396	Nov. 5	49	738
Rug.....	G. Marchetti.....	19,333	Oct. 1	49	2
Rug.....	J. Pegel.....	19,391	Oct. 29	49	566
Rug.....	J. Pegel.....	19,465	Dec. 3	49	1368
		19,492			
Rug.....	J. Pegel.....	19,495	Dec. 17	49	1698
		19,495			
Rug.....	A. Petzold.....	19,335	Oct. 1	49	2
		19,336			
Rug.....	A. Petzold.....	19,392	Oct. 29	49	566
		19,392			
Rug.....	J. Watson.....	19,542	Dec. 31	49	1989
Rug.....	W. G. Wilson.....	19,407	Nov. 5	49	738
Rug.....	W. G. Wilson.....	19,543	Dec. 31	49	1989
		19,544			
Rule.....	F. Benzinger and H. E. Grabau.....	19,379	Oct. 29	49	566
Salt-cellar, &c.....	A. Steffn.....	19,539	Dec. 31	49	1989
Shafts for two-wheeled vehicles.....	G. Godeler.....	19,422	Dec. 24	49	1848
Slate-frame.....	H. C. King.....	19,445	Oct. 8	49	134
Speculum.....	A. H. Goelert.....	19,398	Nov. 5	49	738
Spoon.....	A. F. Jackson.....	19,488	Dec. 17	49	1698
Spoon, &c.....	W. Rogers.....	19,498	Dec. 3	49	1368
Spoon-handle.....	F. E. Pröbst.....	19,337	Oct. 1	49	2
Stable. Exterior of a.....	A. Lacroix, Jr.....	19,369	Oct. 22	49	416
Stocking-supporter.....	G. H. Phelps.....	19,515	Dec. 17	49	1698
Stool. Piano.....	E. B. Dunnigan and J. G. Ramsdell.....	19,325	Oct. 1	49	2
Store-building. Front of a.....	A. Lacroix, Jr.....	19,429	Dec. 17	49	1698
Stove. Cooking.....	J. Dwyer.....	19,327	Oct. 1	49	2
		19,327			
Stove. Cooking.....	J. Dwyer.....	19,413	Nov. 12	49	898
Stove. Cooking.....	Dwyer.....	19,415	Dec. 3	49	898
Stove. Cooking.....	C. F. Walther.....	19,394	Oct. 29	49	566
Stove. Heating.....	H. C. Bascom and T. S. Heister.....	19,483	Dec. 17	49	1698
Stove. Heating.....	J. Dwyer.....	19,353	Oct. 15	49	286
Stove. Heating.....	Dwyer.....	19,414	Nov. 12	49	898
Stove. Heating.....	J. Dwyer.....	19,416	Nov. 12	49	898
Stove. Heating.....	I. B. Resor and H. P. Pflum.....	19,467	Dec. 3	49	1368
Stove. Heating.....	C. F. Walther.....	19,541	Dec. 31	49	1989
Swords. Hilt or handle of.....	19,320	Dec. 24	49	1848	
Table-war.....	C. G. Smith.....	19,427	Nov. 12	49	898
Tea and coffee pot handle.....	C. A. Sheppard and P. Adams.....	19,361	Oct. 15	49	286
Teeth. Gum for artificial.....	E. T. Starr.....	19,392	Oct. 15	49	286
Thimble.....	H. A. Wefman.....	19,470	Dec. 3	49	1368

Alphabetical list of designs, October to December, inclusive—Continued.

Design.	Name.	No.	Date.	Official Gazette.	
				Vol.	Page.
Tile	D. H. Watts	19,441	Nov. 19	49	1050
Tobacco. Plug	J. Beier	19,453	Dec. 3	49	1368
Toilet-article hanger	J. W. Campbell	19,465	Dec. 17	49	1698
Tongs. Candy or sugar	A. G. Cox and O. J. Buck	19,504	Dec. 17	49	1698
Tower	W. L. Judson	19,437	Nov. 19	49	1050
Tower	T. Reichard	19,466	Dec. 3	49	1368
Toy savings-bank	C. G. Shepard and P. Adams	19,556	Oct. 15	49	926
Trimming	G. S. Hensel	19,458	Dec. 3	49	1368
Type. End-stick for locking np	J. P. Kerr	19,439	Oct. 1	49	2
Type. Font of	G. F. Giesecke	19,419	Nov. 12	49	898
Type. Font of	C. Gorchs	19,534	Dec. 24	49	1848
Type. Font of printing	C. H. Boeler, Jr.	19,363	Oct. 22	49	416
Type. Font of printing	W. F. Caplain	19,380	Oct. 29	49	566
Type. Font of printing	H. W. De Witt and C. E. Fiede	19,304	Oct. 22	49	416
Type. Font of printing	W. W. Jackson	19,355	Oct. 15	49	286
Type. Font of printing	E. Lauschieke and J. Schmohl	19,346	Oct. 8	49	134
Type-writers, &c. Cabinet for	J. West	19,351	Oct. 8	49	134
Typographic vignette	L. C. Billings	19,410	Nov. 12	49	898
Umbrella-handle	F. S. Butler	19,342	Oct. 8	49	134
Umbrella-handle	C. A. Davis	19,521	Dec. 24	49	1848
Umbrella-stand	H. W. Beeston	19,408	Nov. 12	49	898
Umbrella-stand	H. W. Beeston	19,409	Nov. 12	49	898
Umbrella-stand	H. W. Beeston	19,429	Nov. 19	49	1050
Upholstery and shade trimming	H. W. Beeston	19,432	Dec. 3	49	1368
Upholstery or shade trimmings	G. S. Hensel	19,422	Nov. 12	49	898
Vehicle body	W. Parker	19,421	Nov. 12	49	898
Watch-case	J. H. Osborne	19,425	Nov. 12	49	898
Water-closet bowl or stand	W. Parker	19,526	Dec. 24	49	1848
Weeding-hook	J. Budde	19,540	Dec. 31	49	1969
Wrenches. Insertible jaw for	S. Palmer	19,480	Dec. 10	49	1542
Wrenches. Insertible jaw for	B. Donahue	19,412	Nov. 12	49	898



ALPHABETICAL LIST OF TRADE-MARKS.

Title.	Name.	No.	Date.	Official Gazette.	
				Volume.	Page.
Absorbent powder to check perspiration	J. M. Resequent	17,239	Dec. 3	49	1369
Acid. Carbolic	W. Pickhardt & Kuttroff	17,354	Dec. 31	49	1990
Anesthetics	C. P. Brignonnet and E. A. Naville	17,085	Oct. 8	49	134
Axes	Haynes, Pillsbury & Co.	17,287	Dec. 17	49	1698
Bakers' productions	E. Benge & Co	17,196	Nov. 19	49	1650
Baking-powder	F. E. Bundy	17,229	Dec. 3	49	1368
Balm or salve for rough skin	Cooper & Hardenburgh	17,327	Dec. 31	49	1990
Bandages	G. Staler	17,172	Nov. 5	49	738
Basin-lifts for wash-basins and bath-tubs	W. H. Ward	17,103	Oct. 15	49	386
Boat or bats of fibrous material	Walker & Williams	17,092	Oct. 8	49	134
Bed-springs	E. A. Jones	17,189	Nov. 12	49	898
Beer	Harting & Hudson	17,342	Dec. 31	49	1990
Beer, ale, and lager	Crystal Spring Brewing Company	17,137	Oct. 22	49	416
Beer. Bottled	Southern Brewing Company	11,291	Dec. 17	49	1698
Beer. Bottled lager	O. S. Neale	17,109	Nov. 5	49	738
Beer. Lager	H. Kerr	17,126	Oct. 22	49	416
Belting. Wire lacing for joints for	Boston Woven Hose Company	17,168	Nov. 5	49	738
Belts for machinery and hose for conducting water	H. Wise	17,143	Oct. 29	49	566
Beverage. Tonic	W. L. Horne	17,175	Nov. 5	49	738
Blocks. Sets or series of picture	P. Cox	17,166	Nov. 5	49	738
Blue. Laundry	Heller & Metz Company	17,281	Dec. 17	49	1698
Boilers	Carter, Dinsmore & Co	17,278	Dec. 17	49	1698
Boilers. Water-tube vertical	Hazelton Boiler Company	17,190	Oct. 92	49	416
Boilers. Water-tube vertical	Hazelton Boiler Company	17,121	Oct. 22	49	416
Boots and shoe wearing plates	Hartford Heel Plate Company	17,122	Oct. 22	49	416
Boots and shoes for women, infants, and children	Hance & Spinyne	17,156	Oct. 29	49	566
Boots and shoes. Rubber	Dugan & Hudson	17,280	Dec. 17	49	1698
Boots, shoes, and rubbers	G. H. Bowen	17,279	Dec. 17	49	1698
Brandy. Cognac	Gautier Frères	17,261	Dec. 15	49	386
Brandy. Cognac	Gautier Frères	17,108	Oct. 15	49	286
Butter, lard, oleomargarine, tallow, and grease. Packaged	Gautier Frères	17,109	Oct. 15	49	286
Buttons. Cuff and collar	B. C. Dally	17,072	Oct. 1	49	2
Cachemires for dresses	F. I. Marcy & Co	17,191	Dec. 10	49	1542
Canned corn, beans, and succotash	Hilton, Hughes & Denning	17,111	Oct. 15	49	386
Canned lobster	H. C. Baxter	17,184	Nov. 12	49	898
Canned salmon	Northern Packing Company	17,289	Dec. 17	49	1698
Canned vegetables, fruits, fish, oysters, and meats	H. C. Baxter	17,185	Nov. 12	49	898
Canned vegetables, fruits, fish, oysters, and meats	H. C. Baxter	17,195	Nov. 19	49	1050
Cards. Playing	Russell & Morgan Printing Company	17,117	Oct. 15	49	386
Cards. Playing	Russell & Morgan Printing Company	17,122	Nov. 5	49	738
Cashmere shawls	Hilton, Hughes & Denning	17,342	Dec. 31	49	1990
Catalogues	F. M. Spreehne & Co	17,357	Dec. 31	49	1990
Chemical compositions for dipping sheep, curing scab, and killing parasites	Tomlinson & Hayward	17,244	Dec. 3	49	1368
Chemical. Chemical compounds derived from	Chemische Fabrik Auf Actien, (vormals E. Schering.)	17,385	Dec. 31	49	1990
Chocolate and chocolate preparations	Huyler's	17,077	Oct. 1	49	2
Cigarette-paper. Straw	C. E. Wackerhagen	17,106	Oct. 15	49	386
Cigars	J. Bárazana	17,108	Dec. 17	49	1698
Cigars	Berninger Bros	17,277	Dec. 17	49	1698
Cigars	I. T. Dyer	17,334	Dec. 31	49	1990
Cigars	A. T. Friedman	17,341	Dec. 31	49	1990
Cigars	J. F. Markey	17,265	Dec. 15	49	386
Cigars	P. Moreda	17,102	Oct. 15	49	386
Cigars	W. Stratton	17,193	Nov. 12	49	898
Cinchona-cordial, blood-specific, liver-pills, and ointment	L. L. Trupile & Sons	17,091	Oct. 8	49	134
Coats, overcoats, jackets, and wraps for male and female wear	H. B. Ewbank	17,155	Oct. 30	49	366
Confectionery. Headlines, and prepared sugar	Hammerslough Brothers	17,302	Dec. 31	49	1990
Confections. Chocolate	H. F. Ihlee	17,131	Oct. 22	49	416
Corsets	Fokes, Hayward & Company	17,098	Oct. 15	49	386
Cotton goods	Leshner, Whitman & Co	17,134	Oct. 22	49	416
Cotton linings	W. S. Thomson	17,210	Nov. 19	49	1050
Cotton sheetings and shirtings	A. G. Hyde & Sons	17,292	Dec. 17	49	1698
Cotton sheetings and shirtings	Jackson Company	17,251	Dec. 10	49	1542
Cotton sheetings and shirtings	Jackson Company	17,252	Dec. 10	49	1542
Cotton sheetings and shirtings	Jackson Company	17,293	Dec. 17	49	1698
Cough remedies, pills, liniments, salves, and plasters	Jackson Company	17,297	Dec. 17	49	1698
Cutlery and edge and other tools	C. C. Cook	17,232	Dec. 3	49	1368
Cutlery and edge-tools	J. A. Allen & Sons	17,160	Nov. 5	49	738
Identifiers	B. Worth & Sons	17,206	Dec. 17	49	1698
Detergent	A. Chouet & Co	17,163	Nov. 5	49	738
Disinfectants	P. Dhice	17,306	Dec. 24	49	1848
Disinfectants	Chemical Chemical Company	17,313	Nov. 26	49	1216
Dress-stays	Condy & Mitchell	17,296	Dec. 31	49	1990
Dyspepsia remedies	A. Kelley	17,255	Dec. 17	49	1698
Elastic. Shoe	H. D. Hughes, J. Hunt, and P. Nolen	17,250	Dec. 10	49	1542
Emmenagogue	Herbert & Rapp Company	17,100	Oct. 15	49	386
Extracts. Flavoring	Chichester Chemical Company	17,114	Oct. 15	49	386
	Chapman & Smith Company	17,295	Dec. 17	49	1698

Alphabetical list of trade-marks, October to December, inclusive.—Continued.

Title.	Name.	No.	Date.	Vol.	Page.
Eye-glass and spectacle frames. Glasses for	J. Johnston Optical Co	17,188	Nov. 12	49	898
Eye-glass and spectacle frames. Glasses for	Johnston Optical Co	17,345	Dec. 31	49	1990
Fertilizers.	W. Works. Lister's Agricultural Chemical Works.	17,147	Oct. 29	49	566
Fertilizers.	Lister's Agricultural Chemical Works.	17,179	Nov. 5	49	738
Fertilizers.	Lister's Agricultural Chemical Works.	17,180	Nov. 5	49	738
Fertilizers.	Lister's Agricultural Chemical Works.	17,351	Dec. 31	49	1990
Files and transfer-cases. Letter.	J. A. Livers	17,317	Dec. 24	49	1848
Flour. Patent	Swan Lake Mill Co	17,223	Nov. 26	49	1316
Flour. Wheat	Eagle Roller Mill Co	17,359	Dec. 31	49	1990
Flour. Wheat	Eagle Roller Mill Co	17,333	Dec. 31	49	1990
Flour. Wheat	Eagle Roller Mill Co	17,337	Dec. 31	49	1990
Flour. Wheat	Eagle Roller Mill Co	17,336	Dec. 31	49	1990
Flour. Wheat	Eagle Roller Mill Co	17,337	Dec. 31	49	1990
Flour. Wheat	Moseley & Motley Milling Company	17,358	Dec. 31	49	1990
Flour. Wheat	Wilkinson, Gaddis & Company	17,360	Nov. 19	49	1050
Flour. Wheat	Wilkinson, Gaddis & Company	17,174	Nov. 5	49	738
Fly-paper	Lyon, Clement & Greenleaf	17,181	Nov. 5	49	738
Fly-paper. Sticky	Ryan Drug Company	17,157	Oct. 29	49	566
Food. Birds'	Snook & Halbe	17,120	Dec. 10	49	1542
Food for infants and invalids. Farinacons	J. R. Triggs and S. A. Pearson	17,260	Dec. 10	49	1542
Food made from wheat	J. R. Triggs and S. A. Pearson	17,206	Nov. 19	49	1050
Food and relishes, such as fruits and vegetables.	H. F. Ihle	17,333	Dec. 31	49	1990
Fruits and vegetables for dessert purposes. Composition produced from	W. P. Clotworthy	17,128	Oct. 22	49	416
Games	R. G. Barnes	17,230	Dec. 3	49	1368
Games. In-door base-ball	I. Parnly	17,113	Oct. 15	49	296
Gloves	R. Altman	17,138	Oct. 22	49	416
Gloves	Balan Preses	17,194	Nov. 12	49	1050
Gloves of kid and other skins.	A. C. Hartman	17,116	Oct. 15	49	296
Grease, lubricating, wool, and other oils. Machinery.	Columbia Refining Co.	17,323	Dec. 31	49	1990
Gum. Chewing	C. T. Hesel	17,246	Dec. 10	49	1342
Gum. Chewing	C. T. Hesel	17,359	Dec. 31	49	1990
Gum. Chewing	C. T. Hesel	17,146	Oct. 29	49	566
Gum. Chewing	C. T. Hesel	17,187	Nov. 12	49	898
Hair-tonic, tooth-powder, and toilet-powder	Kerr, Walton & Co.	17,316	Dec. 24	49	1848
Hats	G. W. Kirk	17,285	Nov. 19	49	1050
Hats and caps	Beltaire, Lurch & Co.	17,327	Dec. 3	49	1308
Hay inhalers. Cnt.	D. D. Yonnans	17,329	Dec. 24	49	1848
Honey	S. S. Alderman and J. B. Roberts	17,340	Dec. 31	49	1990
Hose. Fire	W. C. Gleason and J. C. Ryan	17,274	Dec. 17	49	1698
Hose. Linen hydraulic	Eureka Fire Hose Company	17,308	Oct. 24	49	1848
Hose of circular-knit fabric. Fire	H. F. Herkner	17,107	Oct. 15	49	296
Ice-cream, ices, water-ices, fruit-punches, sorbets, glacés, confections, and iced and frozen candies.	E. H. Kent	17,220	Nov. 26	49	1216
Insects. Liquids, powders, or paste for destroying	A. G. Graves	17,088	Oct. 8	49	134
Insulators and other articles. Composition for electric	Roxite Company	17,340	Dec. 3	49	1368
Kitchen and household articles of sheet-steel	Bronson Supply Company	17,154	Oct. 29	49	566
Knit woollen, silk, and cotton fabrics	L. Hernsdorf	17,275	Oct. 1	49	2
Lamps, lanterns, and lamp-chimneys. Coal-oil.	Standard Lighting Company	17,152	Oct. 29	49	566
Lead. Black	W. G. Nixey	17,149	Oct. 29	49	566
Leather goods. Fancy	W. Le Brun	17,266	Dec. 10	49	1542
Leather made from sheep and goat skins	J. F. Ingraham	17,124	Oct. 22	49	416
Lime for building purposes.	Kelley Island Lime and Transport Company	17,315	Dec. 24	49	1848
Liniment	Good Luck Liniment Company	17,234	Dec. 3	49	1368
Liniment	S. K. Pierson & Co.	17,234	Dec. 17	49	1698
Liniment, blood-purifier, and chill-tonsic.	R. J. Toomer	17,245	Dec. 3	49	1368
Liniment for external application	X. I. X. Medicine Co.	17,159	Oct. 29	49	566
Liniments	A. F. Pitt	17,153	Oct. 29	49	566
Liniments, pills, cough syrups or remedy, and ointment	Wilson Bros	17,238	Dec. 3	49	1368
Liquor	J. P. F. Casanove	17,163	Nov. 12	49	1050
Liquor. Liqueurs, coffee, tea, and cocoa. Malt	J. P. F. Casanove	17,066	Oct. 8	49	134
Lozenges	H. F. Ihle	17,087	Oct. 8	49	134
Malaria cure and pills	Fobes, Hayward & Company	17,130	Oct. 22	49	416
Maple-syrup	East River Chemical Works	17,246	Dec. 3	49	1368
Meat, fish, and fruit. Preserved	J. F. M. Perham	17,301	Nov. 19	49	1050
Meats. Antiseptic coloring compound for	C. W. Varianek	17,342	Oct. 22	49	416
Medical compound for external and internal use.	J. Horner	17,142	Oct. 22	49	416
Medical compound for the treatment of catarrh and hay-fever.	Monroe & Myers	17,079	Oct. 1	49	2
Medical compound to be used as an inhalant	J. M. Harding Manufacturing Company	17,074	Oct. 1	49	2
Medical preparation for purifying the blood	Aerated Oxygen Co.	17,084	Oct. 8	49	134
Medicated foods and medicinal tonics	I. G. Kiesow	17,078	Oct. 1	49	2
Medicinal compounds in liquid or solid form. Vegetable	E. V. Cameron	17,214	Nov. 26	49	1216
Medicinal compounds. Line of	H. F. Ihle	17,129	Oct. 22	49	416
Medicine acting as a blood-purifier and nerve-tonic.	Cresinger & Co.	17,060	Nov. 19	49	1050
Medicine. Cough	G. P. Bailey	17,176	Nov. 19	49	1050
Medicine for blood, skin, and nerve diseases	Melton & Earle	17,239	Dec. 17	49	1698
Medicine for diseases of the blood, skin, and stomach	Kenyon & Thomas	17,348	Dec. 31	49	1990
Medicine for the cure of headache and liver troubles and a cough cure.	S. K. Pierson & Co.	17,284	Dec. 17	49	1698
Medicine for the cure of rheumatism, neuralgia, and like diseases.	H. E. Weston	17,300	Nov. 19	49	1050
Medicine for the cure of weakness and diseases of the nervous system.	K. L. Koenig	17,236	Dec. 3	49	1368
Medicine for the removal of the effects of over-indulgence in drink.	L. Vanderpool	17,083	Oct. 1	49	2
	M. Rennie	17,272	Dec. 10	49	1542
	Nerve Bean Co.	17,273	Dec. 3	49	1368
	R. J. Philippi	17,271	Dec. 10	49	1542

Alphabetical list of trade-marks, October to December, inclusive—Continued.

Title.	Name.	No.	Date.	Official Gazette.	
				Vol.	Page.
Medicine for the treatment of diphtheria, bay-fever, catarrh, abscesses, and similar affections.	A. Peuchot & Co.	17,170	Nov. 5	49	738
Medicine for throat troubles and for colds, coughs, chills, &c.	F. Mellersab	17,148	Oct. 28	49	566
Medicine. Headache	W. M. Cleveland	17,164	Nov. 5	49	738
Medicine. Laxative	H. J. Kelsey & Co.	17,167	Nov. 5	49	738
Medicine. Lung and throat	C. A. Pierce	17,095	Oct. 8	49	134
Medicine to cure epilepsy	G. F. Smith	17,242	Dec. 3	49	1368
Medicines for purifying the blood	Dallas Medicine Manufacturing Company.	17,329	Dec. 31	49	1990
Medicines for the cure of diseases of the throat and lungs and air-passages.	C. C. Cook	17,321	Dec. 3	49	1368
Medicines for the prevention and cure of microbe diseases	C. Alf Chemical Company	17,134	Oct. 22	49	416
Metallic rings for the cure of rheumatism and the like	L. G. Abbott	17,101	Oct. 15	49	398
Mineral water	Brooklyn Purified Mineral Water Co.	17,135	Oct. 22	49	416
Mineral water. Natural	G. H. Courson	17,307	Nov. 10	49	1050
Oil-cans for filling lamps	S. Monroe	17,216	Nov. 26	49	1216
Oil for external and internal use	Mourlyan, Heimann & Co.	17,333	Dec. 31	49	1990
Oil. Kerosene	G. C. Field	17,133	Oct. 22	49	416
Oils. Lubricating	G. W. Price	17,249	Dec. 10	49	1542
Oranges	W. Reeves	17,388	Dec. 17	49	1698
Paint. Roof	J. B. Orr & Co.	17,192	Nov. 26	49	1216
Paints and colors	Mound City Paint and Color Company.	17,158	Oct. 29	49	566
Paints, fillers, and stains		17,324	Nov. 26	49	1216
Paints ready for use. Liquid	A. Stengel	17,220	Dec. 10	49	1542
Paper for black books. Ledger	G. D. Barnard & Company	17,063	Oct. 8	49	134
Paper. Note	H. S. Crocker & Co.	17,218	Nov. 26	49	1216
Paper of all kinds excepting photographic paper	E. & H. T. Anthony & Company	17,300	Dec. 24	49	1848
Pencil-sharpeners and razor-strops	L. Isaacs & Co.	17,321	Nov. 26	49	1216
Pens	S. B. McBeath	17,225	Nov. 26	49	1216
Perfumes	B. W. Gardner	17,262	Dec. 10	49	1542
Perfumes	Lebo & Fink	17,267	Dec. 10	49	1542
Petrolatum	R. J. Stenger and H. A. McKee	17,331	Oct. 29	49	566
Photographic developing and fixing baths. Non-actinic substances for use in	C. Spiro and L. Snadbeck	17,357	Dec. 10	49	1542
Photographic paper and chemicals	C. B. Richard & Co.	17,300	Dec. 17	49	1698
Photography. Chemical substances and preparations used in	Actien-Gesellschaft für Anilin-Fabrikation.	17,973	Dec. 17	49	1698
Pills	H. Rudnig	17,235	Dec. 3	49	1368
Poison for animals and vermin	Georg Lack Liniment Company	17,233	Dec. 3	49	1368
Polish. Stove	F. W. Anderson	17,247	Dec. 10	49	1542
Polishing metals, wood, glass, &c. Compound for	W. J. Rigby	17,356	Dec. 10	49	1542
Pottery-ware	G. W. Hoffman	17,313	Dec. 24	49	1848
Powder for toilet use. Rice	M. L. Stuart	17,358	Dec. 31	49	1990
Preparations entitled Liq. Santal Flav. e Buebu et Cubeba and Mist. Pepsinum Co. C Bismuth	J. Simon	17,351	Oct. 29	49	566
Pumps. Hydraulic	C. J. Hewlett & Son	17,110	Oct. 15	49	296
Puzzles	J. A. Livers	17,332	Dec. 31	49	1990
Puzzles	J. C. Collin	17,115	Oct. 15	49	326
Quinine	W. E. Taylor and G. W. Turner	17,081	Oct. 1	49	2
Remedies. Line of proprietary	Roesler & Hasselbacher	17,335	Dec. 31	49	1990
Remedy for neuralgia	E. Fournier	17,346	Dec. 31	49	1990
Remedy for rheumatism, neuralgia, and gout. Liquid	J. F. Murray & Co.	17,094	Oct. 8	49	134
Remedy. Headache	C. W. Preston	17,302	Nov. 19	49	1050
Roofing-slate	G. R. Davies	17,219	Nov. 26	49	1216
Rubber and oil clothing	S. Ballard & Co.	17,305	Dec. 24	49	1848
Rubber belting	S. Ballard & Co.	17,301	Dec. 24	49	1848
Rubber belting, rubber hose, and rubber packing	S. Ballard & Co.	17,302	Dec. 24	49	1848
Rubber dress-shields	L. B. Kleibert	17,222	Nov. 26	49	1216
Rubber. Foot-were made wholly or partly of	S. Ballard & Co.	17,324	Dec. 31	49	1990
Rubber hose	Genesee Salt Company	17,136	Oct. 22	49	416
Salt	W. C. Baird	17,096	Oct. 15	49	286
Salt. Table	H. C. von der Lübe	17,208	Nov. 19	49	1050
Salve for healing frozen flesh wounds	E. C. Atkins & Company	17,275	Dec. 17	49	1698
Saws	Jackson Company	17,264	Dec. 10	49	1542
Sheetings and shirtings	Chaffee & Athens	17,186	Nov. 12	49	508
Shingles and sawed timber	National Sheet Metal Roofing Company	17,254	Dec. 10	49	1542
Shingles. Metallic	Oppenheim, Oherndorf & Co.	17,318	Dec. 24	49	1848
Shirts and overalls. Men's	Hargadine, McKittick & Co.	17,310	Dec. 24	49	1848
Shirts. White	Hargadine, McKittick & Co.	17,311	Dec. 24	49	1848
Shirts. White	Hargadine, McKittick & Co.	17,312	Dec. 24	49	1848
Shoes	E. Dalsimer	17,267	Oct. 15	49	326
Shoes and boots	F. F. Emery	17,339	Dec. 31	49	1990
Shoes and leggings	E. B. Stimpson	17,173	Nov. 5	49	738
Shoes. Women's, misses', and children's, and boys' and youths' school	A. W. Clapp & Co.	17,304	Dec. 24	49	1848
Silk and cotton fabrics	W. Skinner Manufacturing Company.	17,320	Dec. 24	49	1848
Skin. Lotion or cream for the	S. T. Koettich	17,349	Dec. 31	49	1990
Snokers' use. Certain named articles for	Langfelder & Hammerblag	17,253	Dec. 10	49	1542
Soap. Granulated	Georgia Soap Co.	17,262	Dec. 17	49	1698
Soap. Toilet	T. Heron	17,076	Oct. 1	49	2
Soap. Tooth	J. Simon	17,150	Oct. 29	49	566
Spices, cream of tartar, saleratus, and bicarbonate of soda	E. R. Durkee & Co.	17,311	Nov. 19	49	1050
Spices, cream of tartar, saleratus, and bicarbonate of soda	E. R. Durkee & Co.	17,320	Dec. 31	49	1990
Spices, cream of tartar, saleratus, and bicarbonate of soda	E. R. Durkee & Co.	17,330	Dec. 31	49	1990
Spices for seasoning meats, &c.	E. R. Durkee & Co.	17,332	Dec. 31	49	1990
Starch. Laundry	E. R. Durkee & Co.	17,331	Dec. 31	49	1990
	Wetmore & Pride Manufacturing Company.	17,321	Dec. 24	49	1848

Alphabetical list of trade-marks, October to December, inclusive—Continued.

Title.	Name.	No.	Date.	Official Gazette.	
				Vol.	Page.
Steel in ingots, blooms, billets, and bars.....	Société Anonyme des Aciéries d'Angleur.....	17,171	Nov. 5	49	738
Stoves and ranges. Heating and cooking.....	Michigan Stove Company.....	17,190	Nov. 12	49	898
Stoves, furnaces, and ranges of all kinds.....	Peninsular Stove Company.....	17,319	Dec. 24	49	1848
Stoves, furnaces, and their various parts. Cooking and heating.....	Michigan Stove Company.....	17,369	Dec. 10	49	1542
Superphosphates and guano fertilizer.....	E. B. Freeman & Co.....	17,307	Dec. 24	49	1848
Tea.....	J. Tetley & Co.....	17,082	Oct. 1	49	2
Tea. Herb.....	Gunton & Curris.....	17,137	Oct. 22	49	416
Tea in packages.....	M. Gillet & Co.....	17,199	Nov. 19	49	1050
Thermometers. Clinical.....	Taylor Bros.....	17,304	Nov. 19	49	1050
Thread. Cotton.....	Les Fils de Cartier-Bresson.....	17,162	Nov. 5	49	738
Tobacco, cigars, and cigarettes. Plug chewing and smoking.....	P. H. Hanes & Co.....	17,165	Nov. 5	49	738
Tobacco, cigars, and cigarettes. Smoking and chewing.....	J. G. Butler & Co.....	17,294	Dec. 17	49	1098
Tobacco. Plug.....	J. H. Spencer.....	17,356	Dec. 31	49	1890
Tobacco. Smoking and chewing.....	Terry & Porterfield Tobacco Company.....	17,305	Nov. 19	49	1050
Tonic for the complexion.....	I. D. Cook.....	17,197	Nov. 19	49	1050
Tonic. Wild-cherry.....	Strauss, Fritz & Co.....	17,243	Dec. 3	49	1368
Tonics, febrifuges, and the like.....	C. Wright & Company.....	17,119	Oct. 15	49	326
Tripe, locks, feet, and tongues. Cooked.....	T. M. Sinclair & Co.....	17,203	Nov. 19	49	1050
Undergarments. Reform.....	A. J. Miller.....	17,286	Dec. 17	49	1698
Valves for water-closet tanks and cisterns.....	W. H. Ward.....	17,104	Oct. 15	49	326
Varnishes, japans, and hard oil finish.....	J. P. Sloane.....	17,140	Oct. 22	49	416
Vinegar.....	Tomato Vinegar Company.....	17,392	Dec. 17	49	1698
Wagon-brake locks.....	Harbit Manufacturing Company.....	17,314	Dec. 24	49	1848
Wagons. Side-spring.....	H. A. Meyer.....	17,118	Oct. 15	49	326
Washing-powder.....	Bryant & Brett.....	17,228	Dec. 3	49	1368
Watch-cases.....	Roy Watch Case Company.....	17,112	Oct. 15	49	326
Watch-movements.....	American Waltham Watch Company.....	17,105	Oct. 15	49	326
Water-wheels and water-motors.....	Pelton Water Wheel Company.....	17,270	Dec. 10	49	1542
Whisky.....	Allman & Co.....	17,212	Nov. 26	49	1216
Whisky.....	G. Clark & Co.....	17,301	Dec. 10	49	1542
Whisky.....	F. M. Lagoni.....	17,359	Dec. 31	49	1890
Whisky.....	Stoll, Vannatta & Co.....	17,258	Dec. 10	49	1542
Whisky.....	E. H. Taylor, Jr., & Sons.....	17,141	Oct. 22	49	416
Wine. Champagne.....	C. Arnould & Heidelberger.....	17,144	Oct. 29	49	566
Wine. Champagne.....	C. Arnould & Heidelberger.....	17,145	Oct. 29	49	566
Wine. Sherry.....	D. Hermanos.....	17,178	Nov. 5	49	738
Wine. Tokayer.....	A. Stein.....	17,080	Oct. 1	49	2
Wines and brandies. Native.....	J. P. Smith.....	17,241	Dec. 3	49	1368
Wood pulp and articles made from the said pulp and metal.....	Kongra Aktiebolag.....	17,071	Oct. 1	49	2
Wool dress-goods. Certain named.....	Hilton, Hughes & Denning.....	17,123	Oct. 22	49	416
Woven and knit fabrics of all kinds.....	W. Donaldson & Co.....	17,073	Oct. 1	49	2
Yeast-powder. Chicago.....	Chapman & Smith Company.....	17,177	Nov. 5	49	738

ALPHABETICAL LIST OF LABELS.

Title.	Name.	No.	Date.	Official Gazette.	
				Volume.	Page.
"Administration Puzzle"	W. E. Taylor and G. W. Turner	6,030	Oct. 1	49	2
"Ash-Walnut Brand." (For sheathing-paper)	M. E. Manahan	6,027	Oct. 1	49	2
"Beggs' Dandelion Bitters"	C. W. Beggs	6,092	Dec. 31	49	1990
"Beggs' German Salve"	C. W. Beggs	6,093	Dec. 31	49	1990
"Bergmann's Screw-Worm-Liniment"	A. Bergmann	6,071	Dec. 3	49	1368
"Biller's Speedy Cure." (For a medicine)	H. N. Biller	6,025	Oct. 1	49	2
"Brick-Tight Sheathing"	M. E. Manahan	6,087	Dec. 24	49	1848
"Carter's Black Stamping Indelible Ink"	Carter, Dinsmore & Co.	6,073	Dec. 3	49	1368
"Carter's Macilage"	Carter, Dinsmore & Co.	6,074	Dec. 3	49	1368
"Chas. Alf's Germ Exterminator"	C. Alf Chemical Company	6,043	Oct. 22	49	416
"Chichester's English, Diamond Brand, Red Cross, Pennyroyal Pills."	Chichester Chemical Co.	6,035	Oct. 15	49	286
"Chichester's English, Diamond Brand, Red Cross, Pennyroyal Pills."	Chichester Chemical Co.	6,036	Oct. 15	49	286
"Chintney Table Sauce"	M. Samelson	6,049	Nov. 5	49	738
"Coles Peruvian Bark and Wild Cherry Bitters"	D. F. Coles	6,031	Oct. 8	49	134
"Colorado Cough Cure"	W. E. Dalrymple	6,062	Dec. 17	49	1698
"Commercial Rosendale Cement"	Commercial Wood and Lime Company	6,070	Dec. 3	49	1368
"Compound Vegetable Stock Food." (For domestic animals)	L. E. Payton	6,064	Nov. 26	49	1216
"Condensed Coffee"	M. Samelson	6,048	Nov. 5	49	738
"Cream Coffee Compound"	M. Grachling	6,024	Dec. 31	49	1990
"Directions." (For a catarrh remedy)	E. C. Mann	6,033	Oct. 8	49	134
"Dr. Bell's Pine Balsam"	F. D. Bann	6,059	Nov. 19	49	1050
"Dr. C. N. Campbell's Cough Cure"	Wilkinson & Roberts	6,067	Nov. 26	49	1216
"Dr. Casto's New Vegetable Cough Syrup"	W. E. Casto	6,075	Dec. 10	49	1368
"Dr. Hildebrand's Improved Syphon Vaginal Doncho and Irrigator."	E. H. Sargent & Co.	6,040	Oct. 15	49	226
"Dr. Pettit's Perfect Blood and Liver Tonic"	Grayson Medicine Company	6,037	Oct. 15	49	286
"Dr. Toland's Liver Tonic or Blood Purifier"	O. Lincoln	6,039	Oct. 25	49	386
"Front." (For dress-stays)	A. Kelley	6,083	Nov. 26	49	1216
"German Putz Pomade Liquid Polish"	E. Meyers	6,061	Dec. 10	49	1542
"Guarantee Case, 20 Years Movement." (For watch-cases)	A. Lawrence	6,032	Oct. 8	49	134
"Haemorrhoid Panacea"	M. B. Baker	6,053	Nov. 12	49	898
"Hall's Canker and Diptheria Remedy"	T. C. Hall	6,063	Dec. 17	49	1698
"Hampshire Table Relish"	M. Samelson	6,050	Nov. 5	49	738
"Hives Cough Cure"	C. E. Hires	6,066	Dec. 24	49	1848
"Hog Cholera Remedy"	R. and C. W. Blackburn	6,045	Oct. 29	49	506
"Holloways Celebrated Stomach Bitters"	G. W. Holloway	6,041	Oct. 22	49	416
"Home Made Ketchup"	W. H. Mohrman	6,056	Nov. 12	49	808
"India Sauce"	Urquhart & Co.	6,077	Dec. 3	49	1368
"Indigo Slick Blue." (For washing-blue)	Diamond, McDonnell & Co.	6,060	Nov. 19	49	1050
"J. Q. Newell Select Twist." (For tobacco)	Rice & Co.	6,058	Nov. 12	49	808
"Jelly of Glycerine and Roses with Witch-Hazel." (Compound for chapped hands)	E. L. Boggs	6,085	Dec. 24	49	1848
"John G. Borden's Home Farm"	J. G. Borden	6,062	Nov. 26	49	1216
"Kentucky Stock Liniment"	G. E. Brown and A. Farns	6,072	Dec. 3	49	1368
"Lucas' Face and Head Lotion"	N. Lucas	6,054	Nov. 12	49	808
"Lundwall's Ointment"	N. Lundwall	6,055	Nov. 12	49	808
"Melted Rock Candy." (For a sirup)	A. H. Stillwell	6,047	Oct. 29	49	506
"Metal Polishing Paste"	N. Lundwall	6,069	Dec. 10	49	1542
"Miss Beach's Curling Fluid"	M. E. Beach	6,078	Dec. 10	49	1542
"Montgomery's Compound Tar Condition Powder"	G. S. Montgomery & Co.	6,028	Oct. 1	49	2
"Montgomery's German Celery and Iron Tonic"	Montgomery Medicine Co.	6,057	Nov. 12	49	898
"Moody's Aromatic Syrup"	M. B. Hoyt	6,079	Dec. 10	49	1542
"Myrrh Dentifrice"	C. Wright	6,068	Dec. 24	49	1848
"Myrrh Tooth Powder"	C. Wright	6,070	Nov. 26	49	1216
"Myrrh Tooth Tablets"	C. Wright	6,069	Nov. 26	49	1216
"Dai Meni Complexion Powder"	F. O. Pitkin & Co.	6,061	Nov. 19	49	1050
"Please Present at the Church with your cards enclosed." (For a wedding-envelope)	Dempsey & Carroll	6,053	Nov. 12	49	898
"Preston's Hot Ake." (For medicine)	Preston Chemical Company	6,068	Dec. 31	49	1990
"Quince Cream." (For a toilet cream)	G. E. Mariner	6,051	Nov. 5	49	738
"Reversible Circular Mirror"	R. Hicks	6,026	Oct. 1	49	2
"Rubber Roofing Paint"	Rubber Paint Company	6,059	Dec. 24	49	1848
"Schuler's Mole and Wart Remover"	C. Schuler	6,090	Dec. 24	49	1848
"Sherman's Headache Capsules"	C. A. Sherman	6,042	Oct. 22	49	416
"Spirits of Spruce." (For medicine)	J. J. Kendrick	6,067	Dec. 31	49	1990
"Spruce Cough Balsam"	W. J. Kendrick	6,065	Dec. 31	49	1990
"Spruce Pine Ointment"	W. J. Kendrick	6,096	Dec. 31	49	1990
"Storm-Proof Sheathing"	M. E. Manahan	6,088	Dec. 24	49	1848
"Strictly Pure Dye." (For silk and silk and cotton goods)	W. Skinner Manufacturing Company	6,091	Dec. 24	49	1848
"Styptic Lotion for Burns, Scalds, Frostbites, Cuts and Sores."	E. A. Levering	6,038	Oct. 15	49	286
"Taft's Bottom Polish"	G. H. Taft	6,044	Oct. 22	49	416
"Tale Brining is an Excellent Bleaching Agent"	Miller & Marx Co.	6,049	Dec. 17	49	1698
"The Magic Mosquito Bite Cure and Insect Exterminator"	M. F. Sallade	6,029	Oct. 1	49	2

Alphabetical list of labels, October to December, inclusive—Continued.

Title.	Name.	No.	Date.	Official Gazette.	
				Vol.	Page.
"The Vallean Manufacturing Co. Gold Leaf, 506 Broome St., New York."	Vallean Manufacturing Company...	6,065	Nov. 26	49	1216
"Victoria Brussels, M. J. Whittall Three Thread." (For carpets.)	M. J. Whittall	6,066	Nov. 26	49	1216
"Von Laer's Sparkling Acid Phosphate Carbonated"	J. P. W. von Laer	6,046	Oct. 29	49	566
"Whitehead Bros' Dyspepsia and Malaria Pills"	Whitehead Brothers	6,034	Oct. 8	49	134

DISCLAIMERS.

Invention.	Patentee.	No. of patent.	Date of patent.	Disclaimer filed.	Official Gazette.	
					Vol.	Page.
Confectionery	August Schwarzschild and Nelson Greenfield.	315,559	Apr. 9, 1889	Oct. 9, 1889	49	286
Construction of fire-proof buildings	Rafael Gustavino	336,048	Feb. 9, 1886	Nov. 15, 1889	49	1263
Dentists' chairs	Basil M. Wilkerson	197,441	Nov. 20, 1877	Oct. 3, 1889	49	286

